VOYAGES AND TRAVELS

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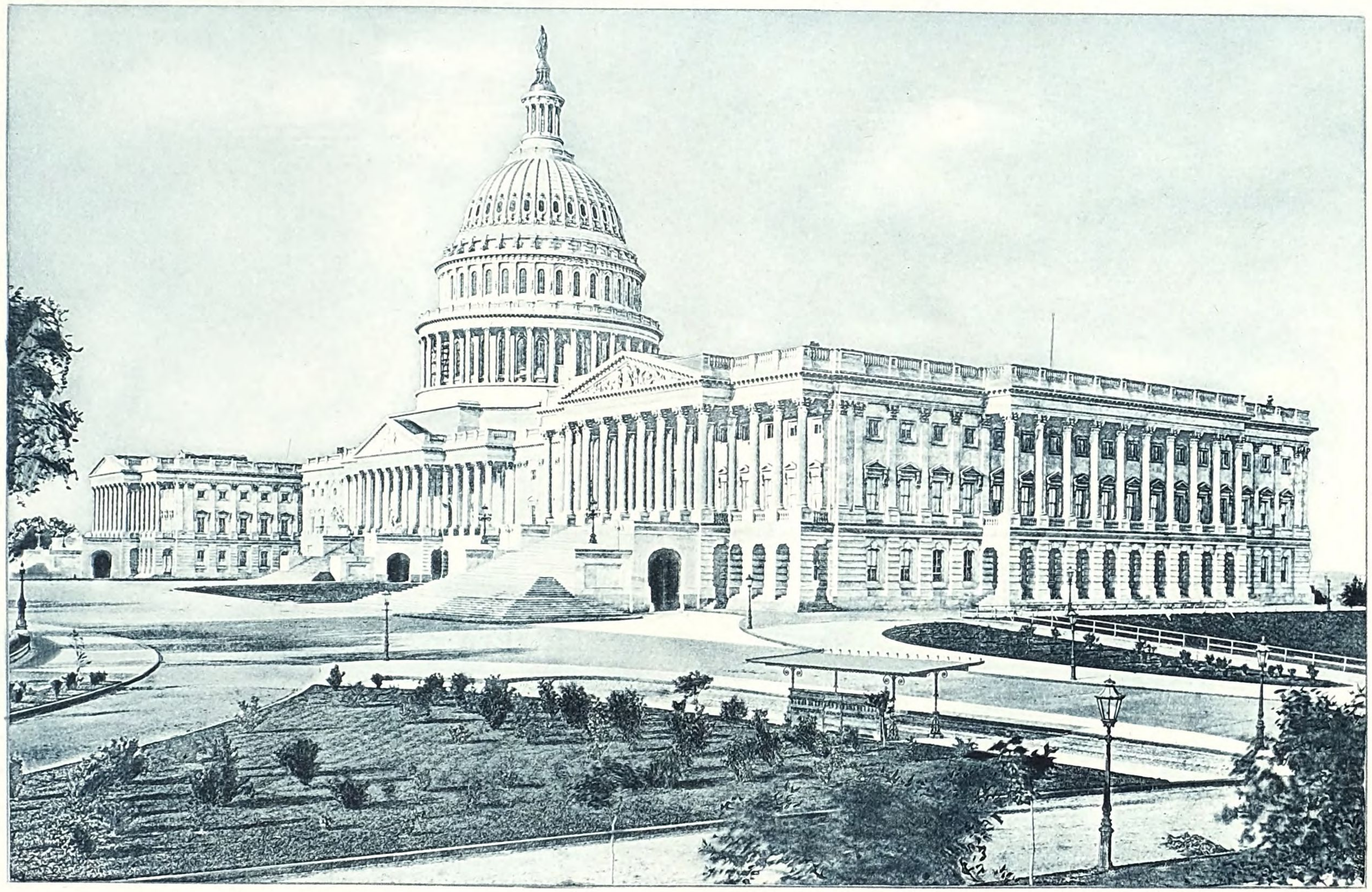


United States Capitol

VOYAGES AND TRAVELS

TALES IN MINIATURE

TWO HUNDRED AND FIFTY ILLUSTRATIONS ON WOOD AND STEEL

OF

TALES FROM ALL PARTS OF THE WORLD

INCLUDING TRAVELS, CATHEDRALS, CASTLES, SPORT AND ROMANCE

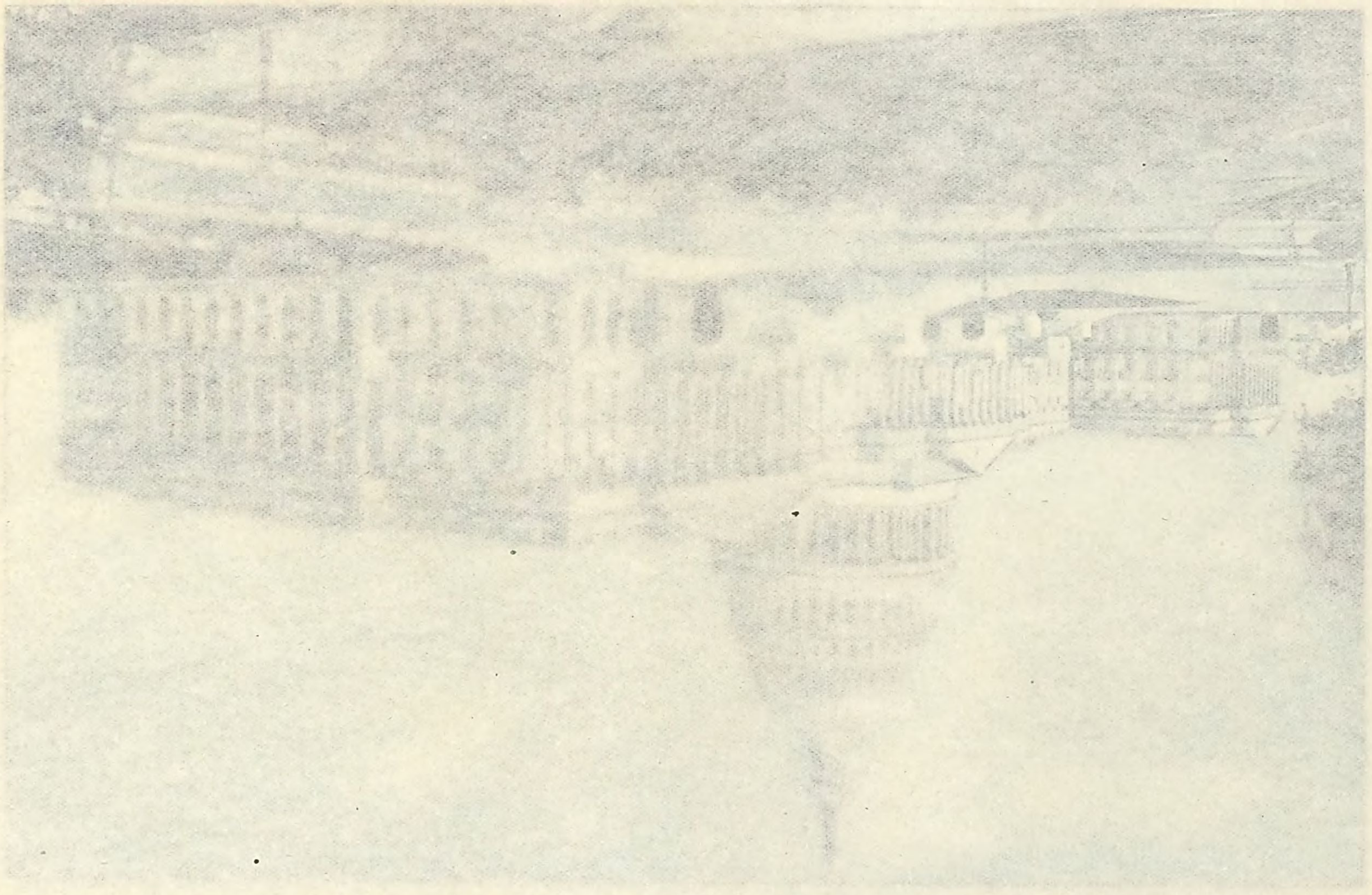
SELECTED FROM PUBLICATIONS BY THE BEST AUTHORS

EDITED BY

DE LA COLANGE, LL.D.

AUTHOR OF "POPULAR ENCYCLOPÆDIA AND DICTIONARY, ETC.

PART I.



VOYAGES AND TRAVELS

OR

SCENES IN MANY LANDS

WITH EIGHT HUNDRED AND FIFTY ILLUSTRATIONS ON WOOD AND STEEL

OF

VIEWS FROM ALL PARTS OF THE WORLD

COMPRISING MOUNTAINS, LAKES, RIVERS, PALACES, CATHEDRALS, CASTLES, ABBEYS, AND RUINS

WITH ORIGINAL DESCRIPTIONS BY THE BEST AUTHORS

EDITED BY

LEO DE COLANGE, LL. D.

EDITOR OF THE NATIONAL ENCYCLOPEDIA AND ZELL'S POPULAR ENCYCLOPEDIA AND DICTIONARY, ETC.

VOLUME II.—PART I.

BOSTON

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VOYAGES AND TRAVELS;

OR,

SCENES IN MANY LANDS.

VOLUME II.

NORTHERN PROVINCES OF PORTUGAL.

HAVING finished our excursion to Toledo, we returned to Madrid, and after spending a few days in visiting its galleries, and the works of the ancient masters contained therein, we determined to join a party that were about starting for a tour through Portugal. It was decided that we should depart from Madrid, and, taking a northwest course, proceed to Vigo.

The kingdom of Portugal is a mere offset of the Spanish monarchy: under the name of Lusitania it was a province of Roman Spain; in later days it shared with that country the ravages of the Suevi and the Visigoths, and, still later, was overrun and occupied by the Moors. Early in the eleventh century, Henry of Burgundy, for the very important services which he had rendered to Alfonso VI. of Castile, obtained the hand of his daughter, with the government and possession of all the lands in Portugal, whence he had expelled the Moors, and which were erected into an hereditary earldom. The son of this marriage, the brave Alfonso Henriquez, who succeeded his father in 1112, — having obtained a miraculous victory over five Moorish kings on the plains of Ourique, — was proclaimed, by the unanimous voice of his troops, King of Portugal. To this country, then, whose birth was so romantic, and whose destiny it was at one time to be mistress of both Indies, and the mother of Brazil, we hasten with expectant steps. It was about six in the evening when we caught our first view of Vigo. It is scarcely possible to conceive a more lovely scene than was presented to us as our carriage took its

course towards the town. The mountains which surround the bay were illumined with the soft and mellow light of the declining sun ; the waters were calm and smooth as those of an inland lake. Villages and churches were to be seen here and there on the shore, while in a corner towards the south-east, and extending from the base of a lofty hill some way up its side, appeared Vigo itself, glittering with its houses of white, surmounted by its venerable castle, and forming one of the most prominent objects of the whole view.

There are not many objects of curiosity in Vigo. It contains about six thousand inhabitants, is a lively town, beautifully situated, and, as was to be expected, quite of a continental character. It recalled forcibly to our mind some of the pictures in Rogers's "Italy," and the scenes described in the opening chapter of Manzoni's "Promessi Sposi." One lane we walked through, in its immediate vicinity, enclosed by low walls of unshaped stone, might have been the very place along which Don Abbondio was going, reciting his office from the breviary, when he had his rencontre with the two bravi. The houses are generally white, but sometimes of a light blue. The streets are narrow. It abounds in beggars, and nobody in it seems to have anything to do. We partook of an early and excellent dinner at the Fonda, consisting of several courses, in the third and fourth of which fish was brought in, and immediately afterwards made preparations for our departure to Tuy, with the two gentlemen who had accompanied us from Madrid, as we were all desirous of reaching Oporto as soon as might be. We accordingly engaged four mules to carry our luggage, and four others to carry ourselves; and so, attended by the drivers of the former, set out on our journey. Tuy is about four leagues distant from Vigo. A league is usually reckoned about four English miles; but in Portugal this measure varies so much in length, — you will in fact hear of long leagues, and short leagues, and leagues without any qualifying epithet, — that, to be told of a distance in leagues, which, nevertheless, is the only measure with which the people are conversant, affords often a very indefinite idea of the ground to be actually passed over. We noticed, however, that when the leagues were characterized as short, they frequently proved longer than usual.

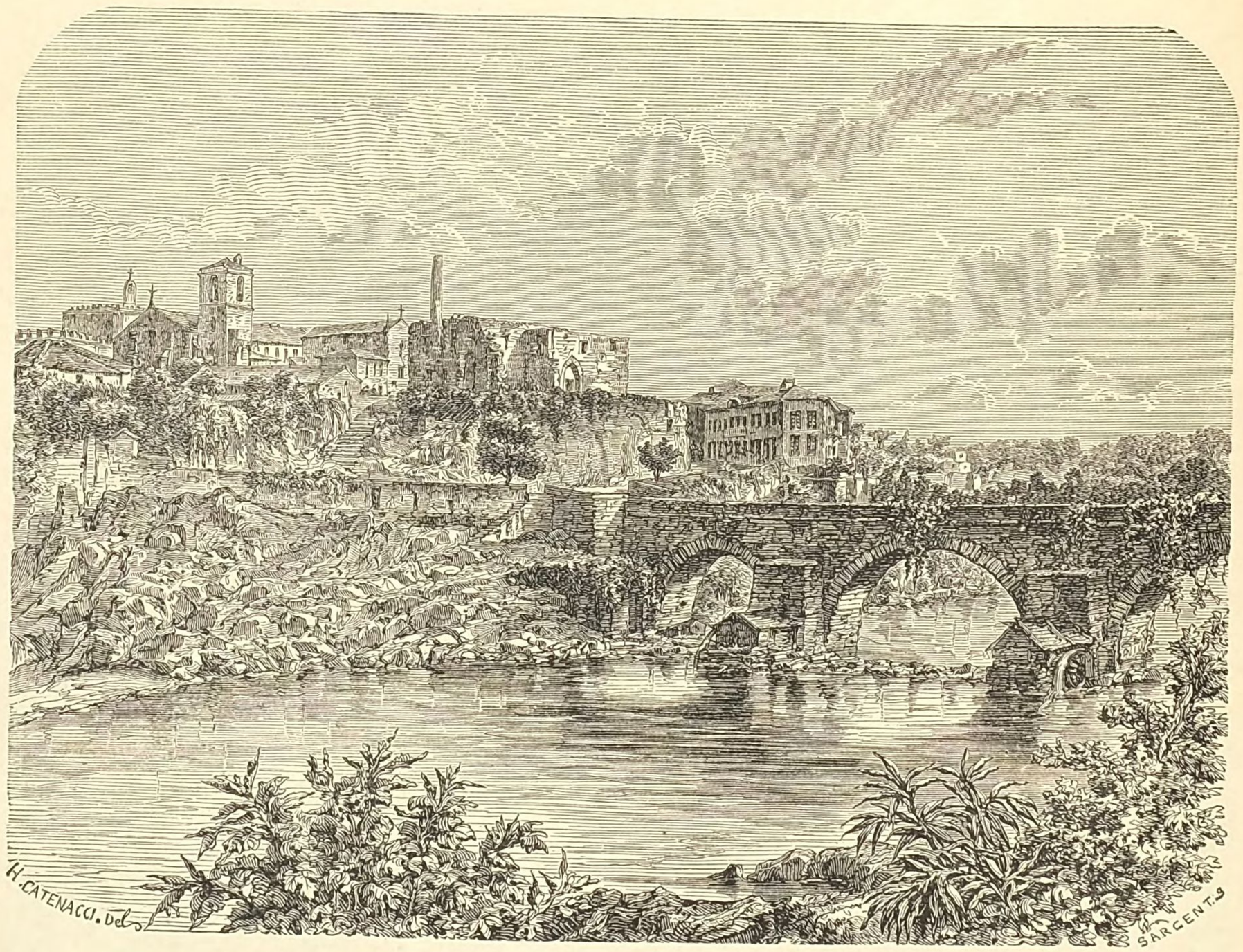
We did not reach Seixas until after three o'clock, and then we had to wait nearly two hours for our mules. These, however, at length arrived, and as soon as our baggage was packed upon those destined to convey it, we mounted the others, and set forward towards Vianna.

There was a wildness and a grandeur in the scenes we had passed through, which, at any other time, would have struck us with admiration; but now, our only anxiety was to get on. We had no leisure for the magnificent, the sublime, or the picturesque; but on, on we proceeded, through mud and dirt, and wind and rain, and now also through gloom and darkness. A weary way, indeed, it was. Anxiously did we look

VIEW OF OPORTO

out for the lights of Vianna long before we reached it, and were ready to think the farther we went the more it receded from us. At last, however, we entered it, nearly at midnight, and with feelings of exultation at the thought of being speedily and comfortably housed.

Vianna is prettily situated at the mouth of the Lima, having a population of about nine thousand, and is a port of some importance. The streets are somewhat narrow, but the houses in general appear of a better class than one usually meets in towns of the same size. There is little to be seen in Vianna, and as we had no time to lose, we immediately made arrangements for proceeding on our way. We engaged a



Barcellos.

muleteer to accompany us to Oporto, and three mules, — two for ourselves and one for our baggage, — and so left Vianna for Barcellos about three o'clock in the afternoon. The road to Barcellos is miserable — worse than the worst cross-country roads we had hitherto ever seen. Indeed, Portugal is noted for bad roads. One over which a carriage can pass is a rarity. The high-roads are often so narrow that two persons cannot ride abreast on them; sometimes (and not unfrequently) they are so covered with mud that one quite pities the horses as they pass through it; sometimes they are more than ankle-deep in water, and sometimes paved with huge stones, which make the horses slip and stumble as if they were going every minute to fall, and seem designed to

impede, as much as possible, the progress of man and beast, and whatever else passes over them. We did not reach Barcellos until the shades of evening had set in. It is beautifully situated on the Cavado, over which stands a venerable bridge (see page 4), connecting the portions of the town on the opposite banks. Over the bridge was passing a stream of people, in the various costumes of the country, whose appearance was rendered still more gay and striking by a sprinkling of red umbrellas, which are commonly used in this country, as a defence against the scorching sun, as well as the rain.

The circumstance of a market being held in Barcellos during our stay there, gave us the opportunity of observing the national costumes of the peasantry and fishermen of the surrounding country. The dress of the men offers few peculiar features, and differs little from that of the peasantry of the south of France. In speaking of the dress of the ancient inhabitants of the peninsula, Strabo says that the Lusitanians wore black cloaks, on account of their sheep being principally of that hue. It is probably for the same reason that the clothes of the Portuguese of the present day are either brown or black. The costume of the women possesess a great deal of character. The skirt, with flat plaits, is short and sometimes drawn up through a girdle high enough to show more than half the leg, which is generally bare. The body of the dress, fastened across the chest with two or three silver buttons, fits close to the figure, and being separate from the skirt, allows the chemise to puff out around the waist. The sleeves, which are those of the chemise, are wide, and occasionally worn rolled up. The head-dress consists of a wide-brimmed hat of black felt, sometimes adorned with tufts, and nearly always wrapped round with the *lenço*, or white handkerchief, whose folds, falling over the neck and shoulders of the wearer, protect them from the sun. Long earrings, and sometimes gold necklaces and chains, complete this picturesque costume, of which yellow, red, and bright green are the predominating colors.

The principal part of the town of Barcellos stands on the right bank of the river, which slopes considerably. The streets and houses are good. The population about four thousand.

The road between Vianna and Oporto, for the greater part of the way, was much of the same character as what we had passed through the day before. As we approached Oporto, the passengers of course became more frequent. Our companion remarked that he thought the Portuguese were the ugliest people under the sun; and we could not help being ourself struck with their gypsy-like appearance and expression of countenance. The Moors have left evident traces of their former occupation of the country, on both the style of its buildings and the features of its inhabitants. Oporto (see page 3) is a very fine and imposing city, situated on two granite hills on the north bank of the Douro. On the left bank of the river, connected with Oporto by a suspension bridge, is Villa-Nova de Gaia, the ancient *Portus Cale.*

The Cathedral and the Episcopal Palace overlook the town, while the Convent of Serra do Pilar, turned into a fortress by Dom Pedro in 1832, protects or keeps in order the suburbs. The port is crowded with shipping, bearing the flags of all nations. The streets running from the base to the summit of the hills are almost perpendicular, — regular stairs cut out of the solid rock; and the Douro almost disappears in the gloom into which it is thrown by the inaccessible hills that form its banks. The effect thus produced is, from a distance, most picturesque; but it is not improbable that the inhabitants would prefer a city easier to travel through, and even an artist would gladly yield a little of the unevenness of the ground for the sake of a little more national coloring, and have it less French, less English, and more Portuguese in its architecture. Oporto is, above all, a business city, and the water-side, the quays, the adjacent streets, particularly the "Rua Nova dos Inglezes," where a kind of open-air exchange is held, are all devoted to commerce. The celebrated wines of the Douro, so well known to us under the name of "port-wines," are stored in Villa-Nova de Gaia, where are also in full operation many distilleries, tanneries, chemical factories, silk factories, &c. The nobility, whose influence has considerably decreased since the fall of Dom Miguel, have their mansions grouped near the cathedral; the finest and best stores and shops are found in the "Rua das Flores," a very agreeable lounge for people of leisure; the money-changers and bankers have their offices in the "Largo da Feira," and the sailors congregate by the water side, in the old part of the town, in dark, gloomy, and hardly accessible streets.

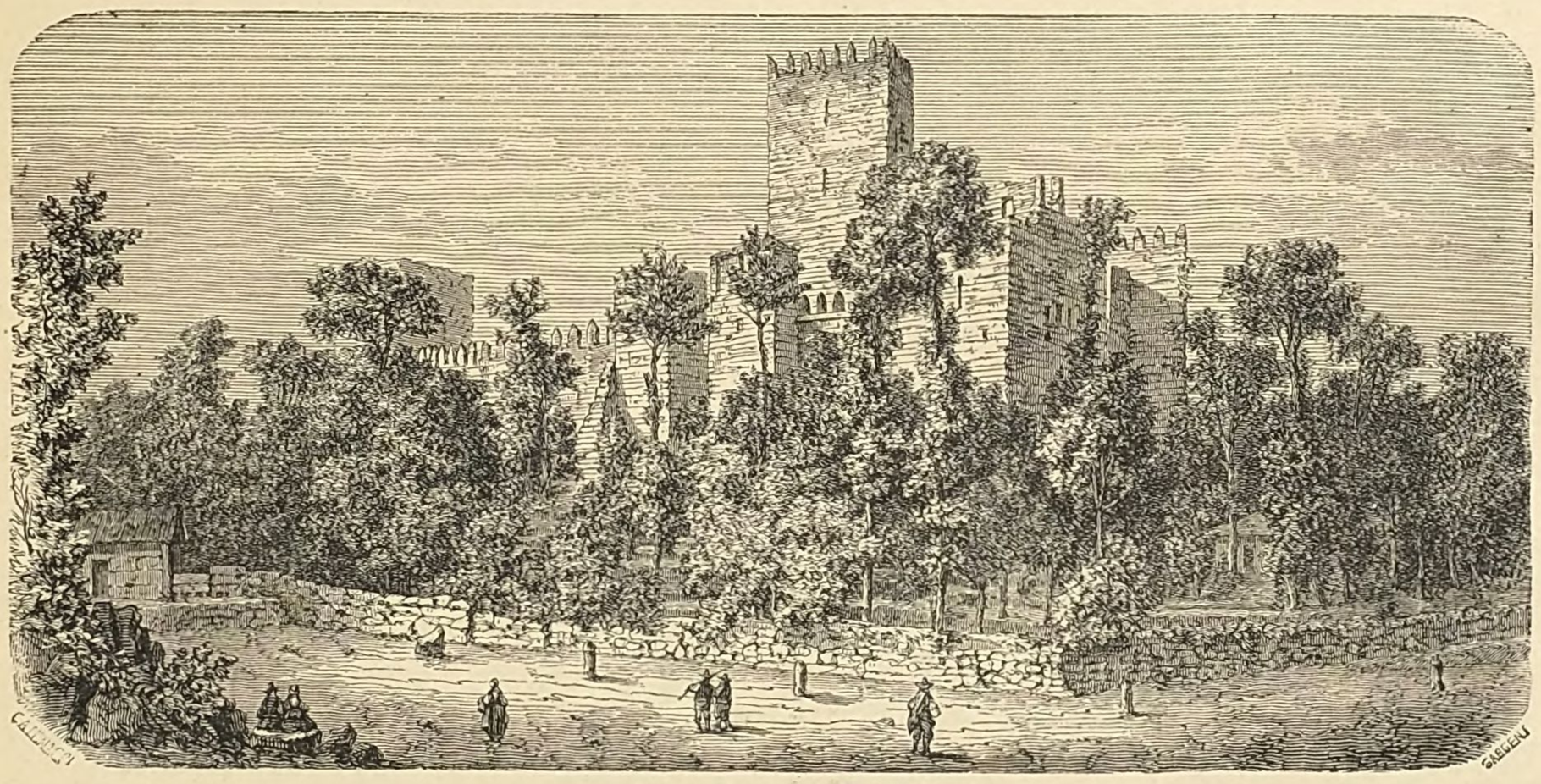
Among the finest streets of Oporto, we must mention the "Rua Nova de San Joaô," the "Rua St. Antonio," the "Calçada dos Clerigos," and the "Rua Nova dos Inglezes;" the last abruptly terminated at one end by a perpendicular rock, crowned by the Cathedral and the extensive buildings of the Episcopal Palace.

On the plateau at the top of the hill, stands the Church of Our Lady of the Assumption, the picturesque tower of which serves as a landmark to ships making for the Douro. Oporto offers few monuments worthy of notice. The Church of St. Martinho da Cedofeita is worth but little attention for its architectural features, but is interesting as being, after the Cathedral of Braga, the oldest religious edifice in the country.

It was here in the garden, or rather "quinta," of one of our friends, that we gathered, for the first time in our life, a ripe orange from a tree which was bearing both fruit and flowers at the same time. This, however, is an ordinary circumstance. The oranges of Oporto are somewhat coarse, far inferior to those of Lisbon; but the blossom is very beautiful, and its odor most fragrant and delicious. We had the opportunity to admire other magnificent flowers, but were told that the best, in this country, came out in winter. We had also an enchanting view of the river and the sea. It was truly a delightful spot, and seemed to realize all that one had read of the sunny lands of the south, and their sweet attractions.

The banks of the Douro are most beautiful and romantic, and afford the people of Oporto many charming views from different parts of their city; while there are many sweet spots on it, a short distance off, to which they resort when they wish to enjoy a day's pleasure, apart from the "crowd and hum of men."

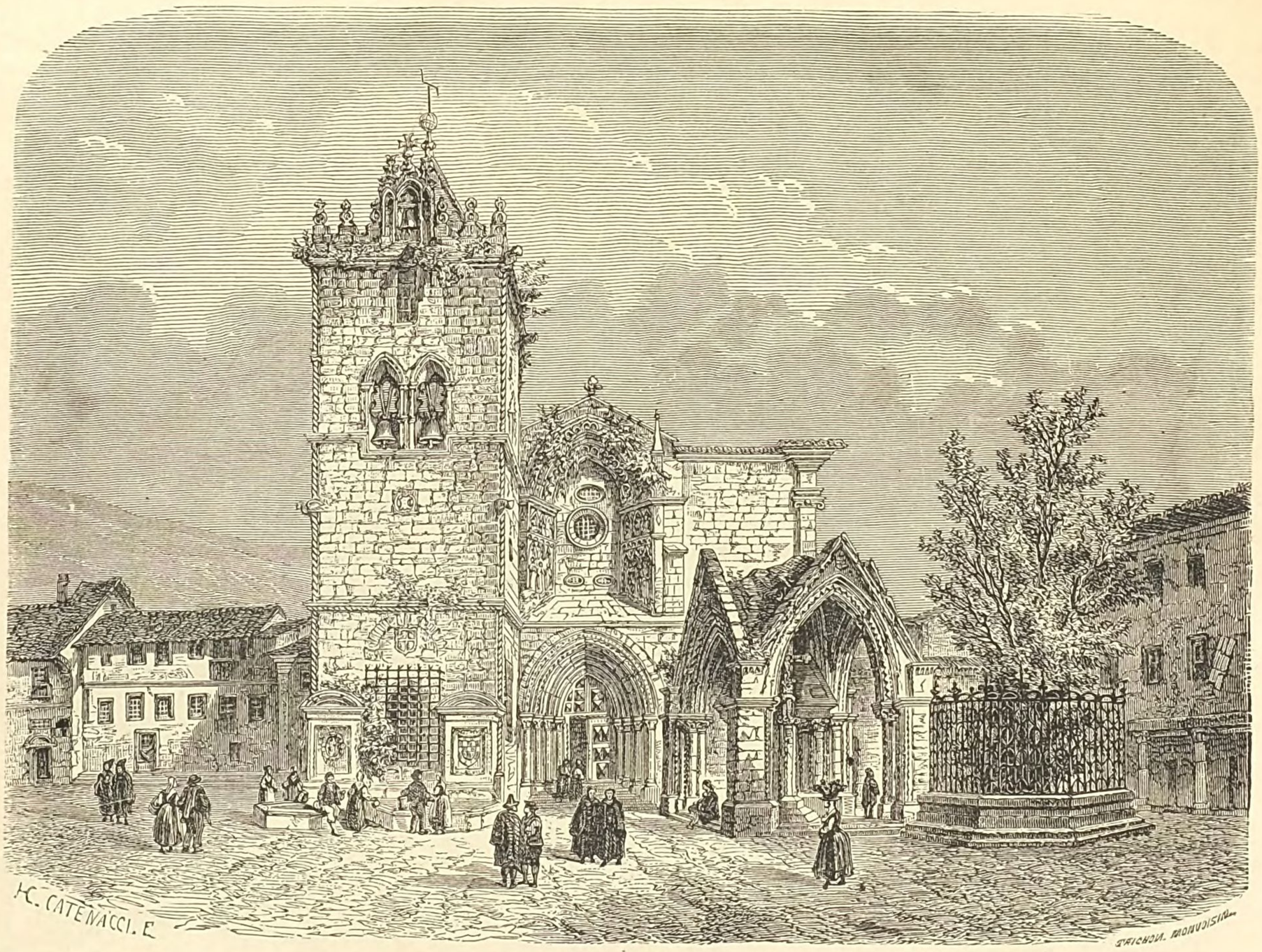
We left Oporto with the muleteer who had accompanied us from Vianna. We had engaged him only to Oporto; but on arriving there, he proposed that we should extend the engagement; and as we had no reason to be dissatisfied with him, we fell in with his proposal. We accordingly set out for Guimaraês, that we reached on the following day. Its situation is enchanting, in a circular amphitheatre, nestled among mountains, and it is historically one of the most famous cities in Portugal. Here Count Henry held his court when the country was as yet but an earldom; and in this place, was born his son, Alfonso Henriquez, surnamed "the Victorious,"



The Castle of Guimaraês.

who was its first king. The appearance of the city corresponds well with both the beauty of its position and its historical celebrity. Its streets are fair and wide; its buildings quaint and picturesque; and even the very pavement, consisting principally of rude, irregular flag-stones, contributes to it a mediæval character. The square in which our inn was situated is really worth describing. On the east, right opposite to us, was the Cathedral, a small but venerable structure of the fourteenth century; adjoining it, immediately in front, was a fountain, the very sight of which, besides being in such a climate agreeable and refreshing, carried us back to times of antiquity; at a short distance towards the south was a beautiful stone canopied market cross; whilst in a corner at the north-west, painted blue, surmounted by a cross and raised on a cloister, stood the Hôtel de Ville. The houses, with their projecting roofs and balconied windows, were quite in harmony with the other buildings. It was one of the most frequented parts of the city, and yet an air of religious solemnity, by no means par-

taking of gloom nor at all inconsistent with cheerfulness, seemed to pervade the whole scene, affording an apt illustration of the influence Christianity should exercise over the actions and pursuits of our daily life. We first went to the ruins of the Castle (see page 7), situated on a rising ground near the town. They are fine and interesting, but by no means extensive. We ascended the tower, and had a fine view, both of the city and the surrounding country. We next visited the Cathedral, dedicated to Nossa-Senhora da Oliveira, which we here present, a name due to a curious old legend. In the time of the Goths, Wamba was in the act of ploughing a field, and with the goad in his hand stimulated his oxen, when the delegates of



Cathedral of Guimaraês.

the nobility came to him to announce his accession to the throne. Surprised and incredulous, Wamba, who had never thought of obtaining the crown, replied that he would be king when his goad, which he struck into the ground as he spoke, should bring forth leaves. By a wonderful effect of vegetation, or, rather, as the legend says, by the miraculous intervention of Heaven, the goad took root immediately, and was suddenly covered with branches, leaves, and fruit. The remembrance of this prodigy is not confined to the church, for in front of Nossa-Senhora da Oliveira, the *Padrao* (monument) stands, a witness of the worship yielded to the tradition of the olive tree. This monument, a small Gothic building of the early part of the four-

teenth century, and due to the piety of Dom Joao I., was raised close to the spot where the miracle is supposed to have occurred; and the very olive tree of Wamba, or at least a shoot from it, is there still, surrounded by an iron railing, spreading forth its branches, young and vigorous, yet honored, venerated, and almost worshipped by every succeeding generation for the last ten centuries.

The Cathedral is a nice old building, but it has received some grievous mutilations without, and has been miserably Italianized within. The cloisters are venerable and tolerably extensive. We were there at an early hour, and mass was going on at one of the altars, and there was a good number of people in the church, engaged in their private devotions. We were shown, in the sacristy, the pelote worn by Dom Joao I. at the battle of Aljubarrota, which was fought August 14, 1385, and a silver altar, in the form of a triptych, representing the different events connected with Our Lord's nativity, taken from the portable chapel of Don Juan, King of Castile, after the same battle. The anniversary of this victory is still kept at Guimaraês, as a day of religious rejoicing. Guimaraês is a manufacturing town of about nine thousand inhabitants.

We resumed our journey, early on the following morning, towards Amarante. Our way lay up a steep mountain ascent of some difficulty to both ourselves and our beasts, but affording us a glorious prospect of the city we had left, the plain on which it stands, the mountains by which it is surrounded, and the quintas and villages interspersed among them. We soon afterwards got on the Serra de Santa Catarina, along which the road led us up and down, here and there, on this side and on that, continually. The ride was, however, splendid — the mountains at one time expanding so as to form a plain; at another, approaching so as to contract it into a valley; and at another, huddled together as if they would jostle one another, with verdure sufficient to take off any appearance of barrenness, — rendering the scenery, everywhere magnificent, more interesting for being thus diversified.

From Amarante, which contained nothing remarkable and offered wretched accommodations, we continued our journey, and began to ascend the pass of Amarante by a fine road. Each side of the pass was clothed with magnificent verdure; and the higher we ascended, the more glorious did the scene become. As we approached the summit, vegetation seemed gradually to languish; the trees were neither so thick nor so forward; the herbage became more scanty and less bright and lively, until at length there was almost an appearance of wildness and desolation. The descent of the pass partook of this character for a considerable distance; the heights under which we were proceeding were bare, or thinly covered with trees of stunted growth, scattered here and there, few and distant: whilst the other side was lined with mountains, whose tops were sometimes brought together like sea-waves, while their bases were far, far below, out of our sight. The scenery could scarcely be said to be beautiful; but it was grand

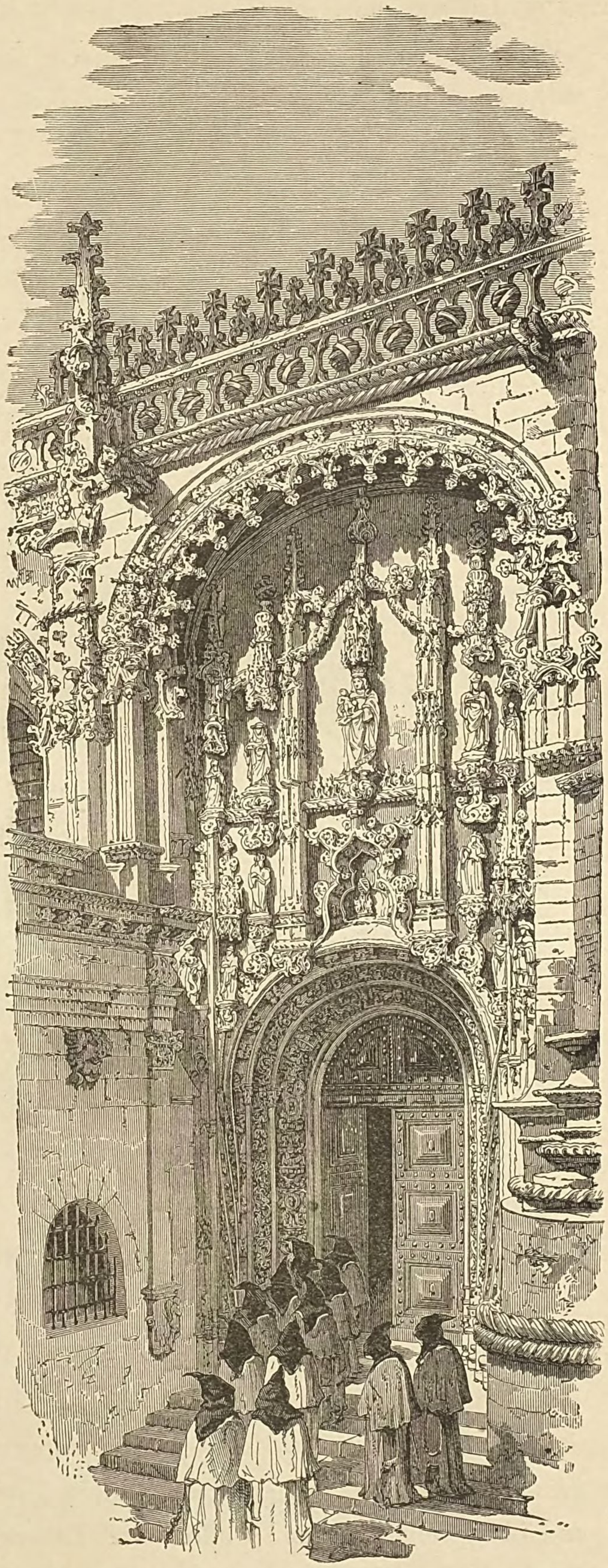
and majestic, and struck us the more, from the contrast it afforded to what we had just before passed through. However, as we got farther down, it became softer and more pleasing, and the verdure increased in richness and luxuriance; but still it was altogether of a different character from that on the ascent.

We went through Mezaofrio, a long, straddling, and untidy place, and soon after reached the Douro, along which lay the chief part of our remaining journey. Its banks were steep and precipitous, and withal very beautiful, being principally covered with vines down to the water's edge. We were now in the midst of the wine country, and could see, here and there among the vineyards, quintas which during the vintage are occupied by the merchants.

Our journey to Thomar was remarkable for nothing save the vile inns, and the wretched accommodation they afforded. The road took us through a varied country, — now, as over the Serra Estrella, rugged and mountainous, afterwards, as we approached Thomar, flat and uninteresting, but well cultivated and fertile. Thomar, a very pretty, clean-looking town, pleasantly situated on the river Nabao, claims the attention of the traveller as possessing the finest architectural treasure in the whole kingdom, — the Convent of the Military Order of Christ.

This order was founded in 1338 by King Diniz, who declared its knights the heirs and successors of the Order of the Temple, suppressed in 1312. At first established at Castel Marim, opposite the African coast, the head-quarters of the Order of Christ were, in 1320, transferred to Thomar, where they remained until the law of 1834 closed all the monastic establishments of the kingdom. Masters of the property and privileges formerly held by the Templars, possessing twenty-one towns and four hundred and seventy-two commanderies, these knights inaugurated a new era in the world's history. Taking the initiative of great maritime discoveries, they obtained, under their grand-master, the Infant Henry, son of Dom Joao I., the exclusive monopoly of distant and extended navigation, and became famous by their wonderful exploits. It was their banner that Vasco de Gama bore to India, — their banner that Alvarez Cabral planted on the shores of the Brazils. The above will enable the reader to perceive the idea that the architect has aimed at implying in his work, and of which a portion of the *Casa do Capitulo* (Chapter House) gives a good specimen. Beneath the cross, emblem of their order, and which, alternately with the cross of Aviz, forms the crest of the parapet, a line of armillary spheres, running along a balustrade, show the bent of the thoughts of the inhabitants of the cloisters; as do also the ropes carved in stone, rove through rings, — here seeming to bind the buttresses to the building they support, there coiling loosely round the pillars. The carving round the circular window represents a sail brailed up in loose folds; the ornaments of a buttress at one of the angles are clasped by a broad buckled belt, those of the buttress opposite by a cable, while carved and chiselled anchors, cables, coral, and marine plants supply the subjects of decoration in profusion. Having ascended a noble flight of steps, we passed into the church through

a beautiful cloistered court, wherein several knights had been buried. The sanctuary is circular, and in the centre of it the high altar, under an octagonal canopy of stone, gorgeously gilt and painted, and supported by very massive pillars. The great entrance on the south is indescribably rich, adorned with images of the Virgin and Child, of bishops, saints, and doctors of the church. The west end, too, is covered with gorgeous carving. The church-bell is the largest in Portugal. The *Casa do Capitulo*, or Chapter House, built by D. Manoel, is a long, low room, with a stone roof, under the Coro Alto, and of which the portal (a view of which we here give) is the *chef d'œuvre* of the architect. On the tympanum of the archway is a screen richly decorated with a dozen statues, of which that of the Virgin occupies the centre. From the windows of the monastery are obtained magnificent views of the town and a wide expanse of country.

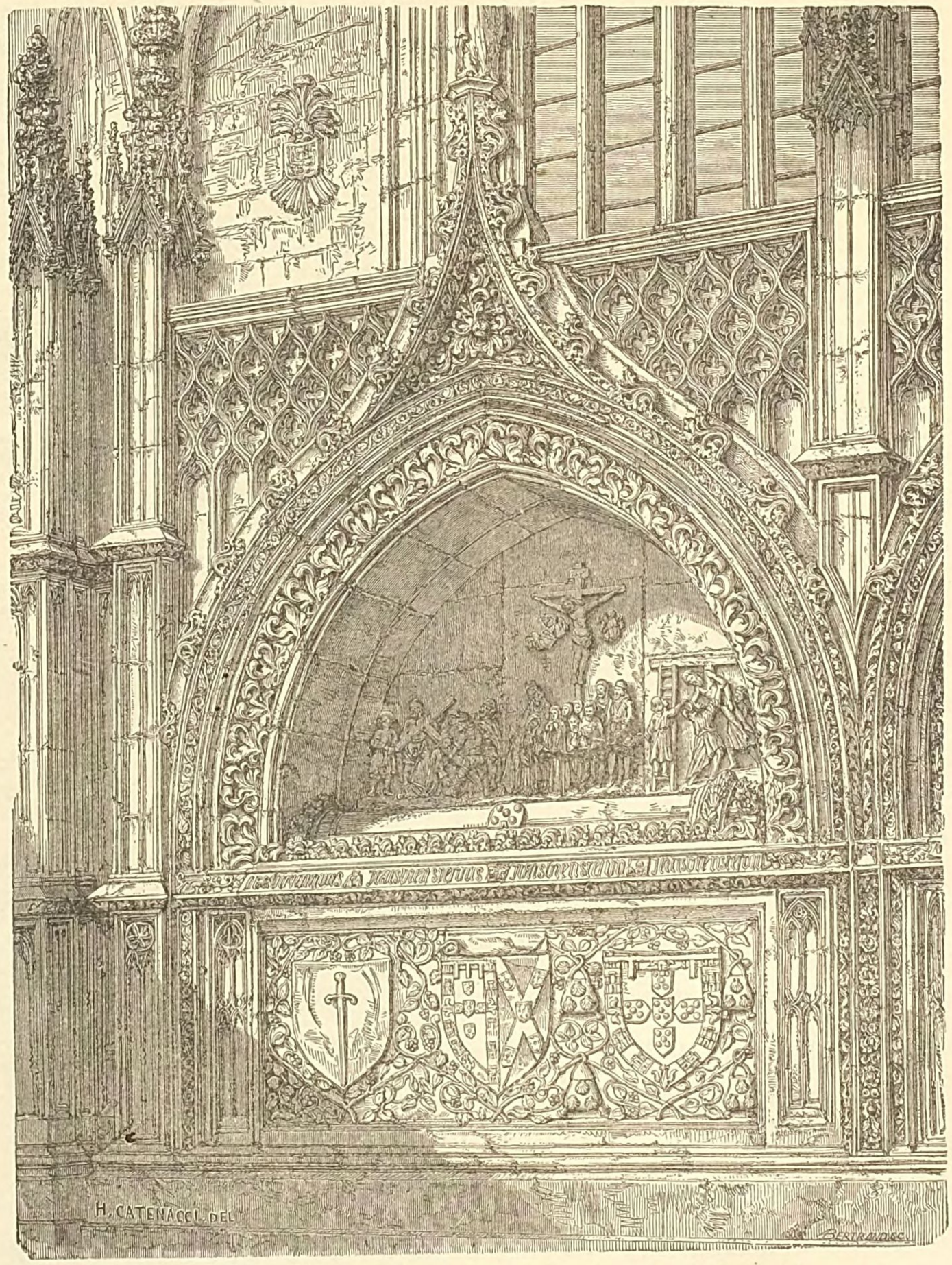


Portal of the Chapter House.

From Thomar we proceeded on our journey through Ourem — a town on a hill, walled round, and old, dirty, and ruinous — to Batalha, where we parted, with the expression of mutual good wishes, from our muleteer, who had accompanied us all the way from Vianna, and, on the whole, served us very well.

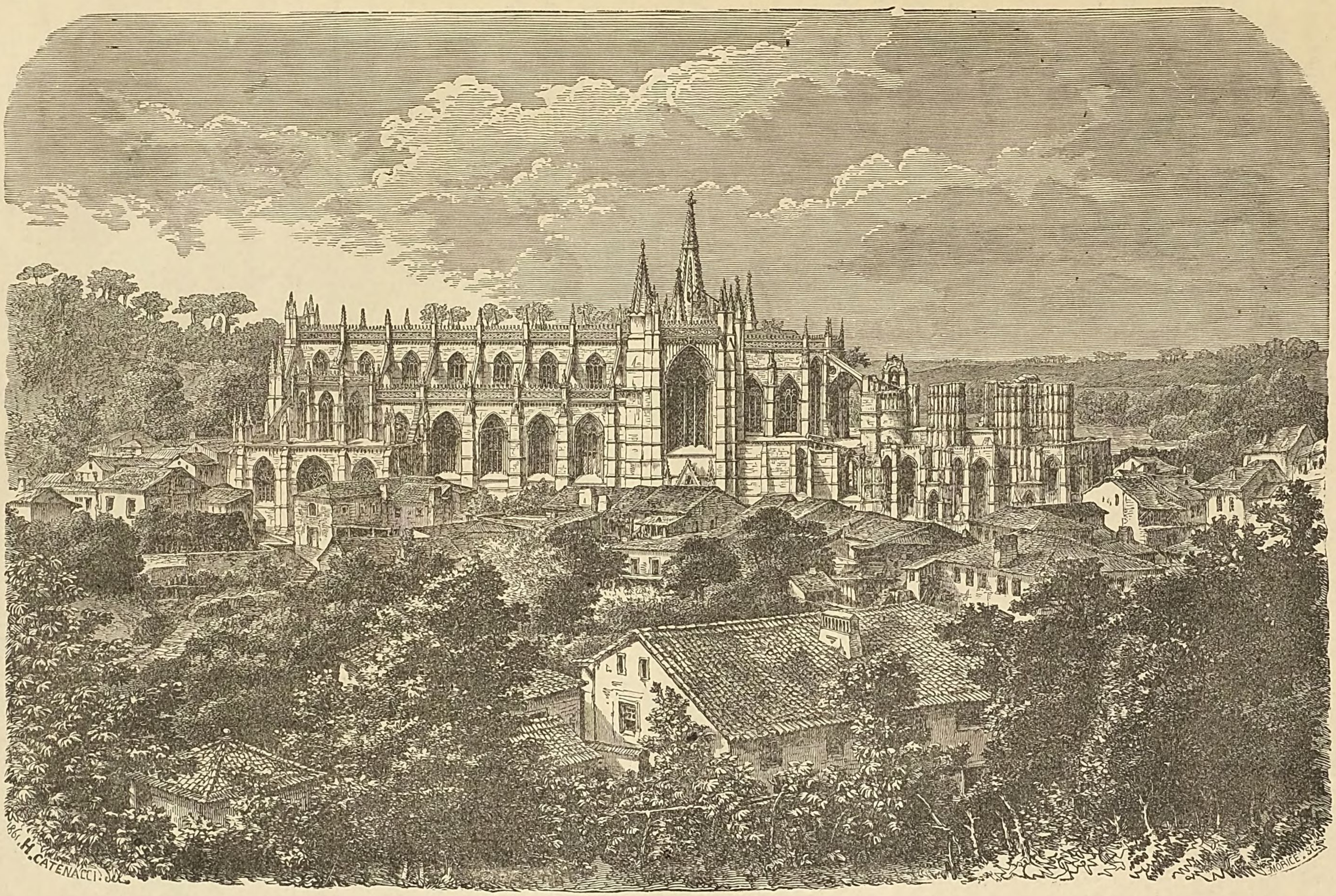
As soon as we reached Batalha, we went to the Conventual Church, which formerly belonged to the Dominicans, — a structure of stupendous magnificence, the architectural glory of Portugal. Thus we first saw it, in the dusky twilight, a time not unfavorable for a general view, as the gloom of departing day was cal-

culated to increase our impressions of its solemnity and grandeur. We of course returned to it the following day for a more particular examination. It stands in the centre of an open space, around which are built the houses of the village. How it strikes one on first entering! The long and lofty nave, eight massive piers on each side, to which, however, their height imparts an appearance of lightness, — the sombre aisles, the noble clerestory and vaulted roof, — all together in a manner awed us with a



Tomb in the Interior of the Conventual Church.

sense of its sublimity (see page 13). At the south-west of the nave is the Chapel of the Founder, Dom Joao I., — a most superb building, sixty-six feet square, distinct from the main building, but entered from it through a beautiful arch. The tomb of himself and his excellent queen, Philippa of Lancaster, daughter of John of Gaunt, is in the centre, under a lofty lantern, supported by eight pillars. They are represented in marble, lying side by side on a slab about seven feet from the ground. She died of the plague

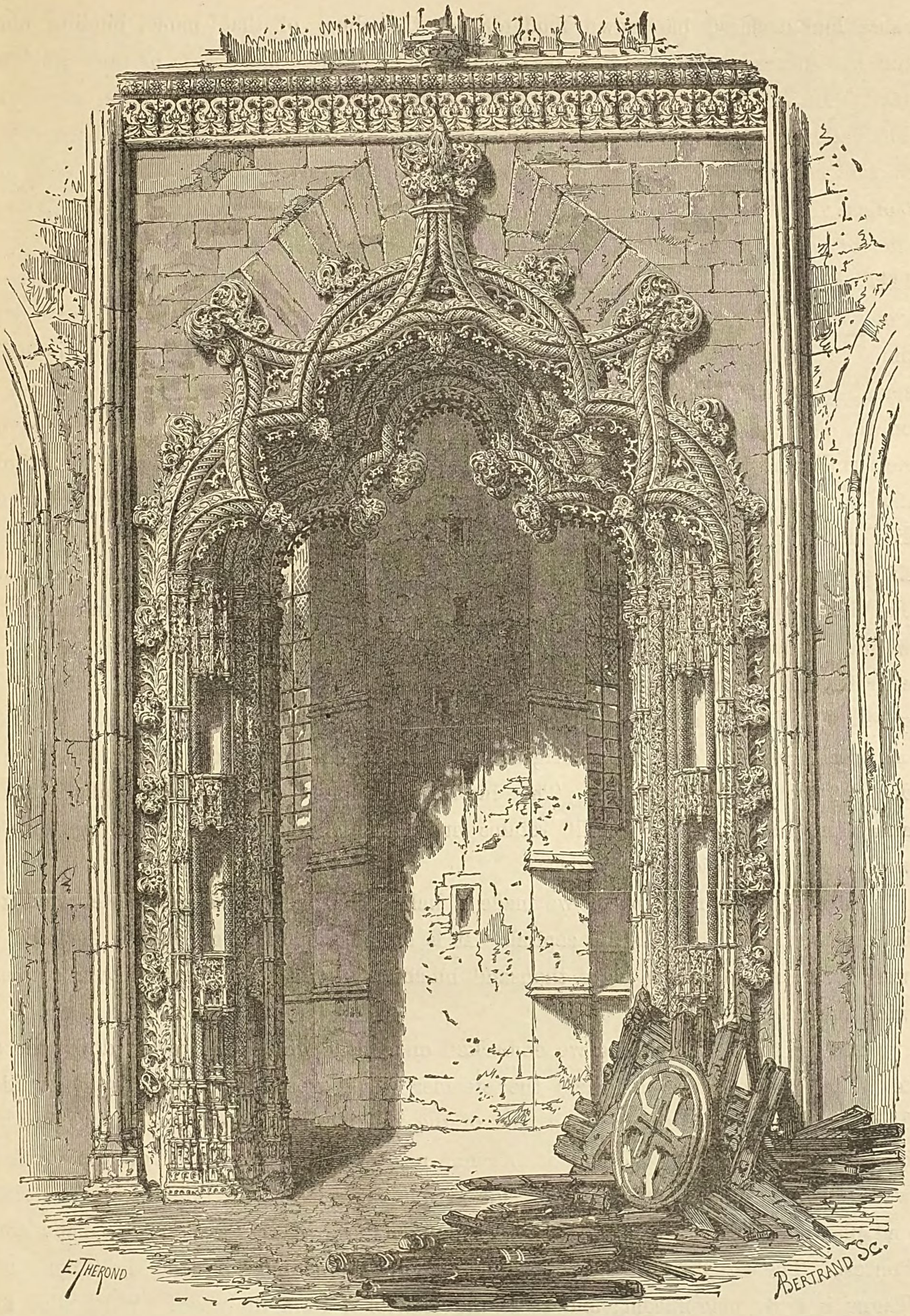


MONASTERY OF BATALHA.

in 1416, in the arms of her husband, who, notwithstanding all the remonstrances of his council, never left her bedside. He died August 14, 1433, the anniversary of the day on which he gained the great victory of Aljubarrota, in honor of which he founded this noble church and the convent to which it belonged. The helmet which he wore in that battle is kept in the Sacristy, as well as his sword, and is so weighty that one cannot but wonder how he could ever have borne it on his head. To the north of the Choir, but separated from it by the Sacristy, is the Chapter House, an exquisite room, sixty-four feet square, with handsome windows and beautiful vaulted roof.

It is impossible to give any idea of the magnificence of the cloisters, which lie to the west of the Chapter House, alongside of the Nave. They enclose a square of a hundred and eighty feet, each side containing seven windows of from three to six lights, and surmounted by deep tracery of the richest character. At the north-west corner is a lovely fountain, of most delicate workmanship. To the right of the Grand Altar a passage leads to a doorway of which the decorations are lavished with fairy-like profusion (see page 15), and which opens into the unfinished chapel. Commenced by Manoel, it was intended to be his sepulchre; but the king altered his mind before the monument was completed, gathered together elsewhere his artists and workmen and the resources of his kingdom, and began on the banks of the Tagus another edifice destined to perpetuate the memory of the then recent maritime discoveries. This unfinished chapel is an octagon, at each side of which is a lofty arch, forming the entrance to a chapel, lighted by three splendid lancet windows. Over these are massive and highly-wrought pillars, which, however, have been carried up but a little way. The richness, beauty, and grandeur of the work are beyond description. Never having been roofed in, it is open to the sky, exposed to the elements, and will probably so remain until it crumbles under the attacks of time. The west door of the church is wonderfully magnificent. It is surmounted by the Coronation of the Blessed Virgin in stone, below which are the twelve Apostles in niches, our Lord and the four Evangelists, while images of saints, &c., in great numbers, form the soffits of the entrance. The lantern of the Founder's Chapel was originally surmounted by an octagonal spire, but this was thrown down in the great earthquake of 1755. There was also another spire at the north-west of the north transept, which was destroyed by lightning about fifty years ago. It has, however, been lately rebuilt. The exterior length of the building is four hundred and sixteen feet, the interior two hundred and sixty-six feet, and the height to the apex of the vaulting ninety feet.

We left Batalha about half past six next morning for Alcobaca, an insignificant town, but well known for its ancient abbey, the shrine of all artists who visit the Peninsula. Wishing to show his veneration for St. Bernard, Affonso, in 1143, put the kingdom he was then striving to conquer under the protection of Our Lady of Clair-

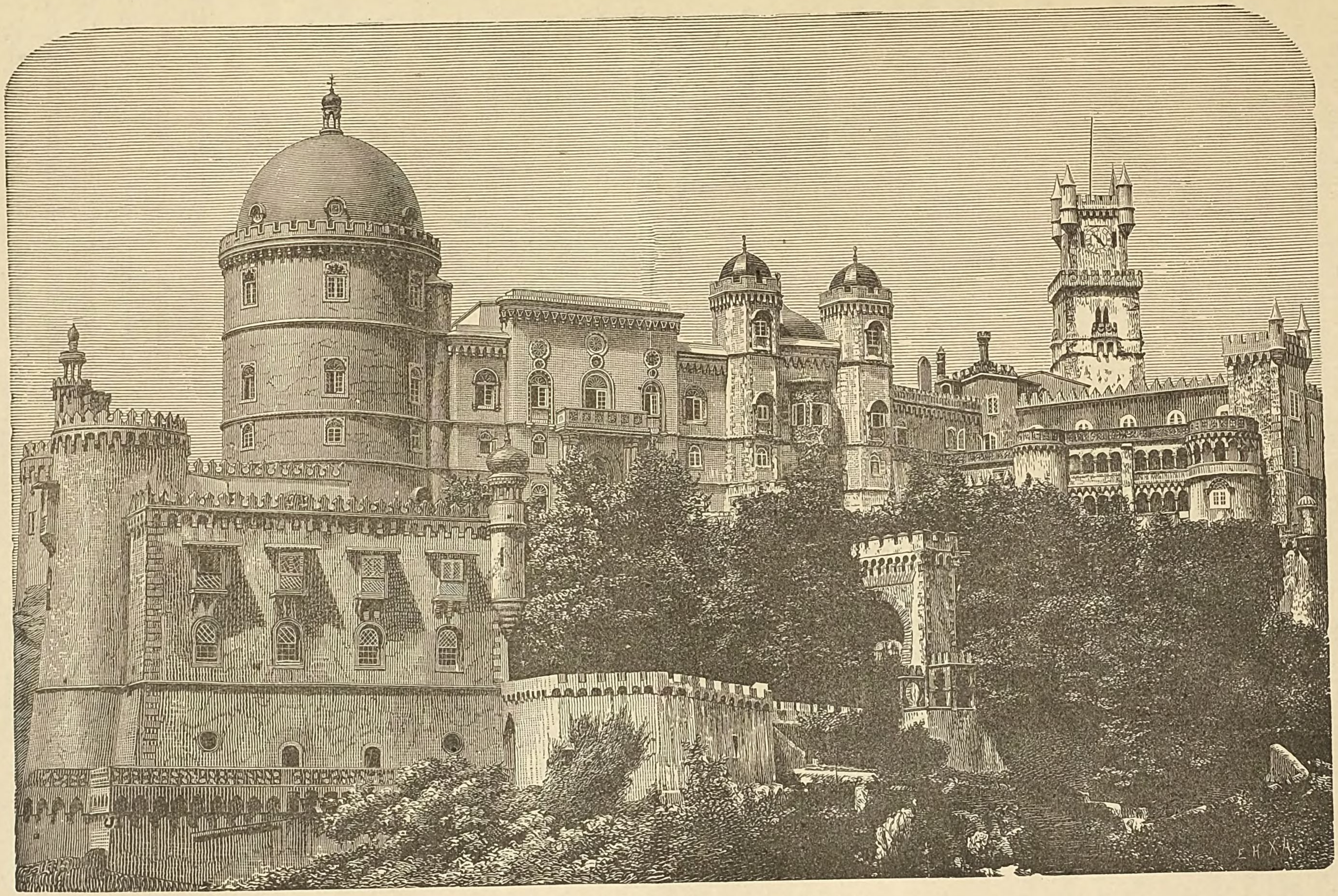


DOORWAY OF THE CHAPEL, BATALHA.

vaux, and declared his crown feudatory of the abbey of that name, binding himself and his successors to pay it a perpetual tribute of fifty *maravedis* of pure gold every year. In 1147 the warrior marched towards Coimbre, to deliver Santarem from the domination of the Almoravides; and on reaching the top of the Serra d'Albardos, vowed that if he prospered in his undertaking, he would grant to St. Bernard and to the monks of his order *all the lands he could see from the spot whereon he stood, on that side of the mountain where the waters run towards the sea.* On the 11th of March, 1147, Affonso entered Santarem, and on the 2d of February following he laid the first stone of the monastery, which the abbey of Clairvaux peopled with monks, with Ranulphus for their first abbot. This vast abbey soon became a centre of theological and scientific learning, and a place of deposit for the historical documents that were, later on, the archives of the kingdom. Favored by succeeding kings, and receiving constantly rich endowments, it prospered to that degree, that at times as many as nine hundred monks were sheltered beneath its roof, and it held fourteen towns with their dependencies under its own jurisdiction, entirely independent of the royal authority. The only thing due to the king by the abbey was a pair of boots or shoes, at his choice, whenever it pleased him to visit the monks. To adequately describe this magnificent pile would require a volume. It is entirely abandoned, and fast falling into decay. The church, which contains the tombs of Affonso II. and of Affonso III., and of their queens, D. Urraca and D. Brites, — also the tombs of several Infants and Infantas, — has been restored out of its original character exteriorly, and nothing but the main door of the original remains. The interior, in spite of some Ionic pillars and gilt altars in the worst taste, still retains its noble character. It is lit by forty-eight windows of splendid stained glass.

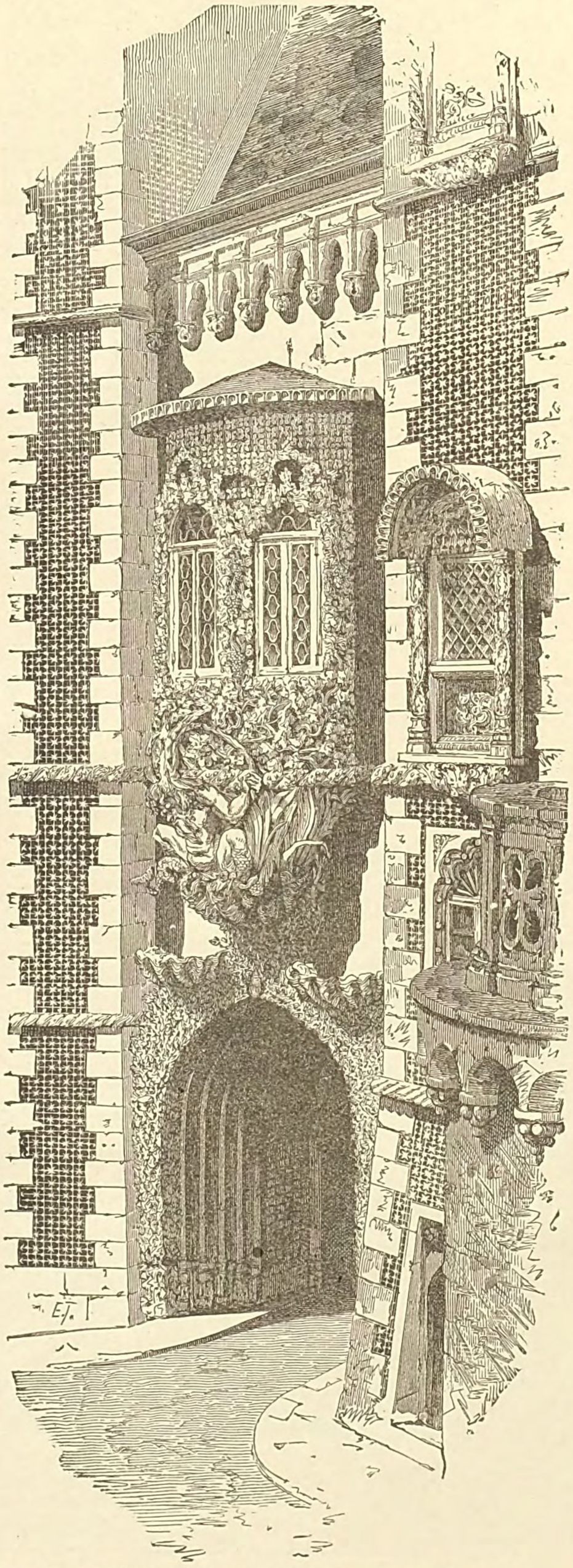
Santarem, the next place we made a halt at, is one of the most celebrated towns in Portugal, and formerly its capital. It is situated upon a high hill, is enclosed by a wall, and contains about eight thousand inhabitants, who seem spread over a tolerably wide surface.

At six the next morning we embarked on a boat which was towed down the canal to Villa-Franca, where it meets the steamer which goes down the Tagus to Lisbon. The Tagus is a noble river; some part of the way it was at least five or six miles broad, but before we reached Lisbon, it became narrower. The country on the south bank was generally flat, but on the other side it was diversified with hills, towns, and villages, and planted with olives and vines. On the outskirts of the capital are many country houses. The situation of Lisbon, standing on several hills on the right bank of the Tagus, is truly magnificent; and so is the view of it from the river. We landed at the Praça do Commercio, which is said to be the finest square in Europe. Its length is six hundred and fifteen feet, its breadth five hundred and fifty. It is open on the south to the Tagus; but the three other sides are surrounded with buildings, comprising the



CASTLE OF PINTRA DE CINTRA.

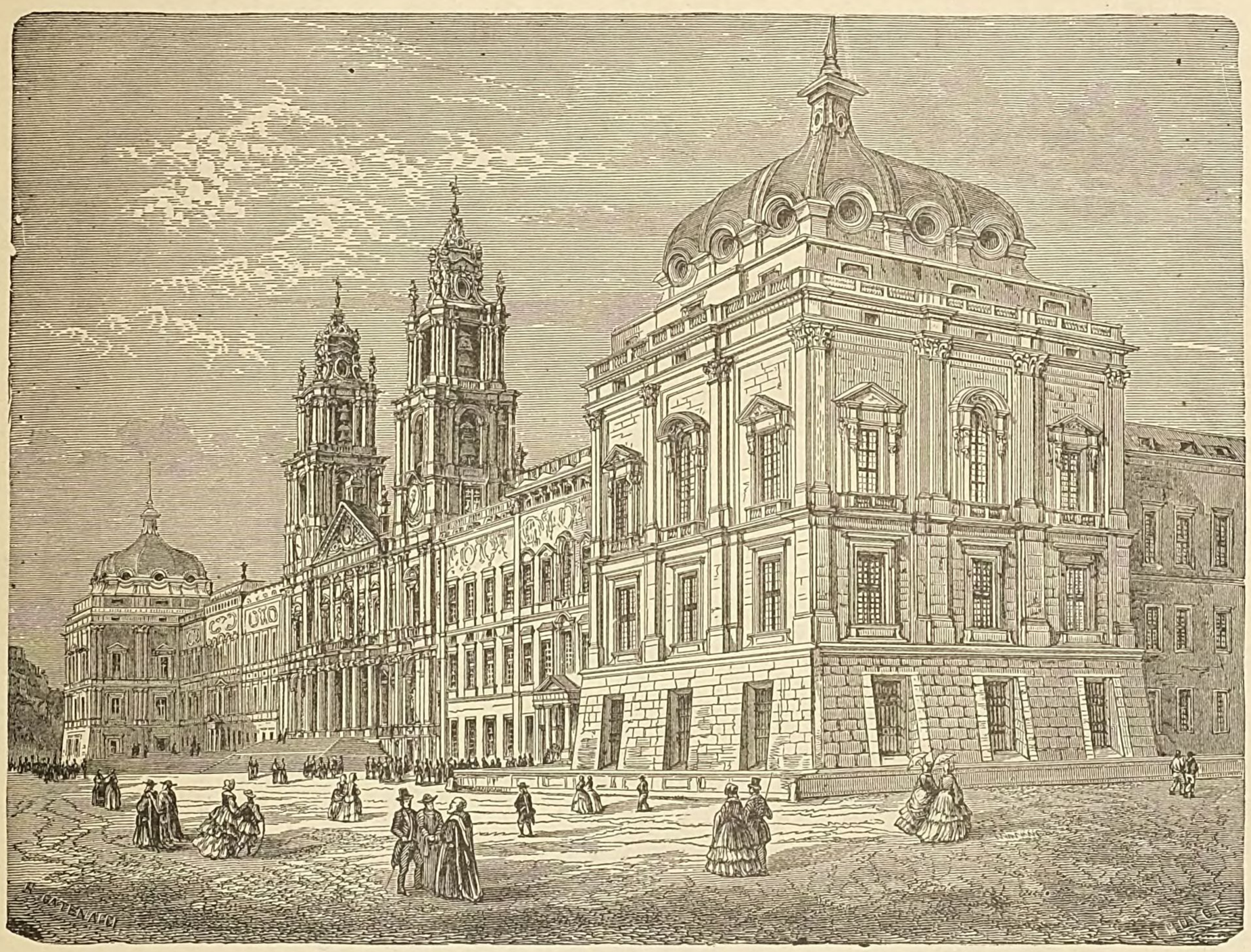
Exchange, Custom House, and other public offices connected with the commerce and government of the country. In the centre is an immense equestrian statue in bronze of Dom José, the only one ever erected to a Portuguese monarch, and considered of remarkable excellence. The sculptor was Joaquim Machado de Castro, a native of Portugal, who died in 1822, at the age of ninety.



Gate of the Castle of Pintra de Cintra.

The road from Lisbon to Cintra, whither we went by omnibus, is good, but there is nothing particularly interesting in the country through which one passes. The first view of Cintra which we obtain as it is entered in this direction, is wild and rugged, consisting principally of a succession of rocky peaks, rising to an immense elevation in naked barrenness. When, however, it is fairly reached, there are other features added to the scene, which quite change its character. Below these rocks, which seem to have been formed by some natural convulsion, is a mountain-height covered with all kinds and degrees of verdure, sloping down into a valley of the sweetest luxuriance. The royal palace is a large irregular building of Moorish origin, as is evident from its architecture and construction, but with many additions from successive Portuguese sovereigns. (See page 17.) The windows, on the exterior, were surrounded with arabesque ornaments. One of the rooms, with a marble floor, contained in its centre a circular reservoir filled with water, around which, it is said, its first inhabitants used to luxuriate in the heat of the day. There are also fountains and *jets d'eau* to be met with in other parts, one of which, in a court adjoining the bath-room, is

sometimes employed to sprinkle visitors unawares. All these bring to mind the founders of the palace: but it is also rich in historical reminiscences of a later date. Thus, one room is pointed out in which the unfortunate Sebastian held his last audience, and the chair in which he sat, before he set out on his unhappy expedition into Africa, from which he never returned. Another, with a handsome tiled floor, part of which is worn by the footsteps of Dom Affonso VI., who was here kept prisoner for the last fifteen years of his life, after he had been most deservedly compelled to abdicate the throne. Another, the roof of which is adorned with the royal arms of Portugal, the escutcheons of the sons and daughters of Dom Manoel, and those of the Portuguese



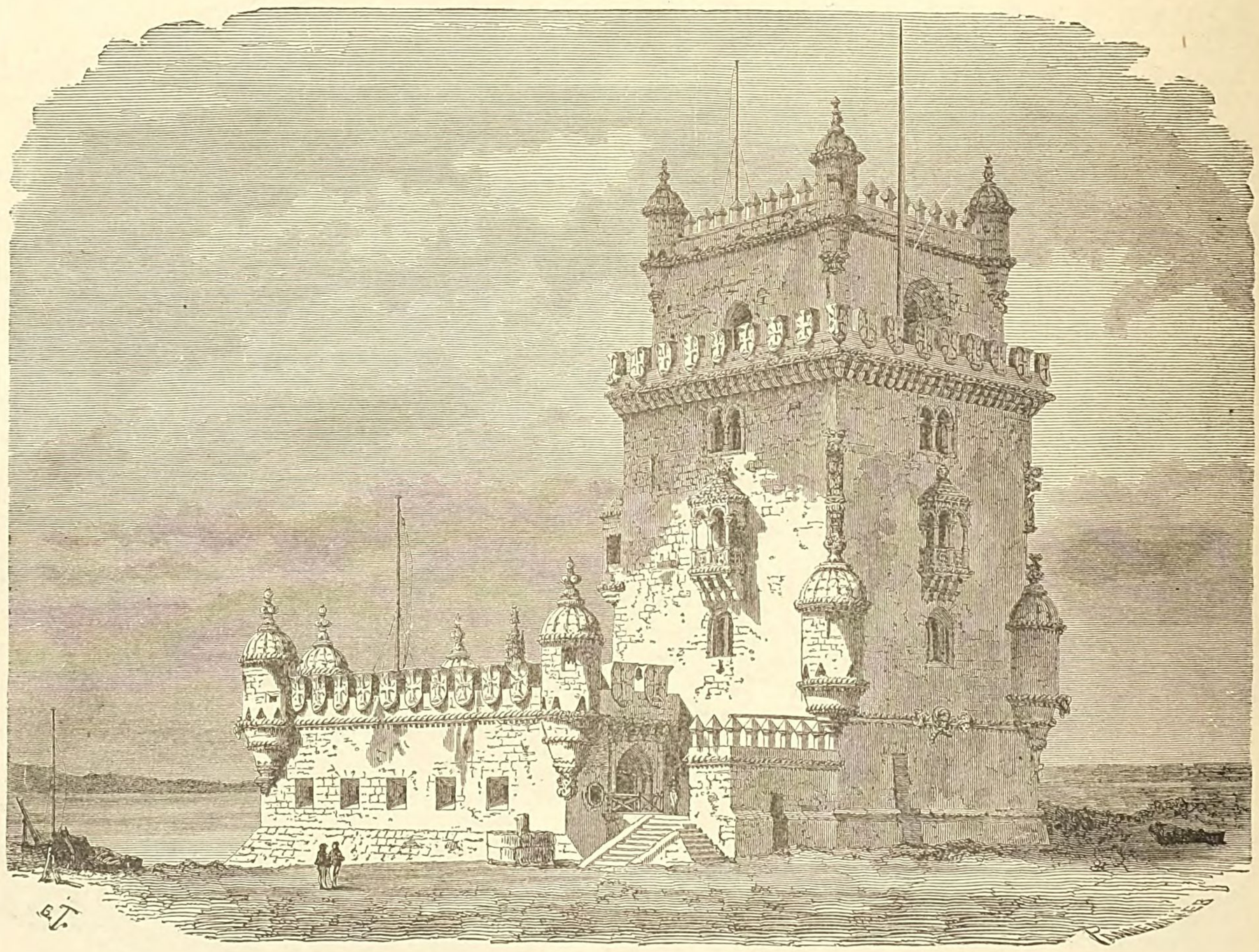
Mafra.

nobility. To this apartment there is a magnificent marble doorway of Moorish architecture, and from its windows with the aid of a glass we had a very good view of the palace of Mafra.

Mafra (a view of which we here present), whither we proceeded, a convent, church, and palace in one, was commenced in 1717 by Dom Joao V., on the plans of a German named Ludovici. Situated, by a royal whim, in the midst of a gloomy and barren spot, this edifice, of a formal and regular, yet handsome style of architecture, forms a square of about two hundred and fifty yards on each side. It contains eight hundred and seventy apartments, five thousand two hundred windows, three hundred

cells, and three churches, of which the principal is a copy of St. Peter's at Rome. Its bells, of which the various steeples contain one hundred and twenty-eight, were cast in Paris and Genoa; and the chimes, imported from Antwerp and Amsterdam, cost fifty thousand crowns of gold. In order to reward the zeal for religion evinced by this undertaking in the cause of religion, the Pope conferred on the King of Portugal and his successors the title of "Most Faithful."

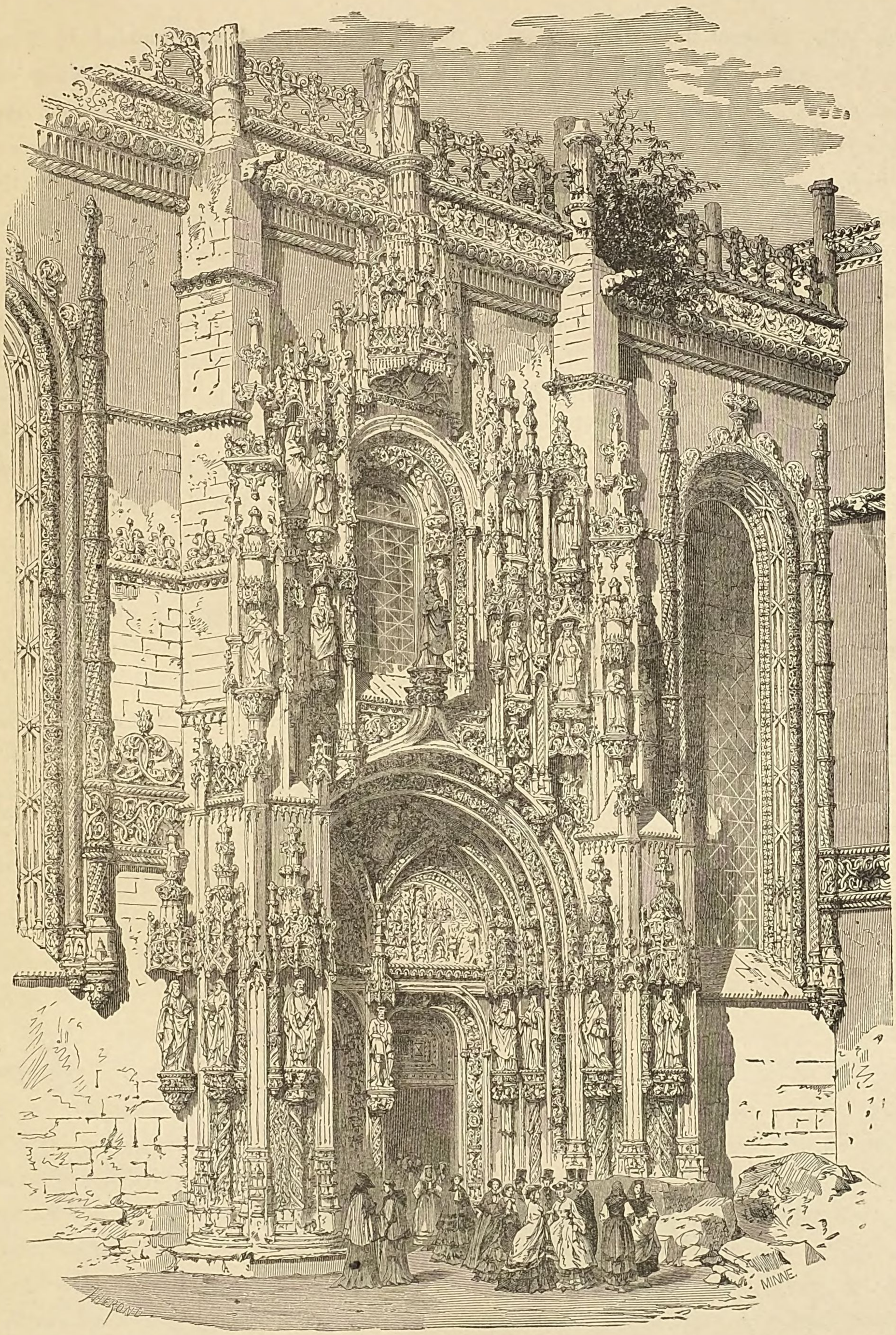
Mafra ruined Portugal. When the king died in 1750, the treasury was empty, not enough money being left to pay for Masses for the deceased. Twenty-seven years later the Marquis of Pombal resigned his power, after having reorganized the army, re-



Tower of Belem.

created the navy, founded a hundred establishments of administration and education, having rebuilt Lisbon from its ruins of 1755, and left the coffers of the state rich with a hundred and fifty-six millions. The military academy is now established at Mafra,

Our last excursion from Lisbon was to Belem, whither we went by a boat which we took from the Quay de Sodré, and which carried us down the Tagus through a crowd of men-of-war and merchant vessels. We landed at the foot of the famous Tower of Belem (see accompanying engraving), which was built by King Joao, surnamed the "perfect prince." It formerly stood on a rock in the midst of the river; but a natural deposit of sand has since then connected it on the north side with the



DOORWAY OF SANTA MARIA, BEL

shore. The convent formerly belonged to the Jeronymites, and was founded by Dom Manoel in 1499, as a thank-offering to God for the success and safe return of Vasco de Gama, on the very spot whence he set out on his memorable expedition to India. The church is very rich and striking, built in a style between the Moresque and the Norman, in which, however, the characteristics of the former seem to predominate. Over the portal (see 21) is placed, looking towards the sea, the statue of Dom Henrique, Duke of Visen, the great forerunner of naval discovery; while on each side above the doors stand the Founder and his queen. The nave and aisles are of the same height; the pillars are highly adorned and of remarkable lightness; the roof is of stone, and so is the west gallery. The windows in the nave and transepts, which were built by Dom Manoel, are circular-headed; those in the choir, which was erected by his son, Dom Joao III., are square. The remains of both these monarchs and their queens, as well as those of the Cardinal-king Henrique, and Dom Affonso VI., lie in this church, which, after Batalha, and perhaps Thomar, is by far the most splendid and interesting of all we have seen in Portugal. The Sacristy, which was formerly the laboratory of the convent, is adorned with pictures illustrative of the life of St. Jerome.

And now, having brought the reader so far through Portugal, if we have succeeded in gaining his sympathies for that small kingdom, our object is attained. It is far from being a large nation, but it has played a part in the past that puts it on a level with great countries, and it is artistically and historically most interesting. The Portuguese, far from resting on the laurels won in the past, appreciates the present, and its events and progress. Intellect, temperament, and instinct — all appear to be reawakened in him. Some prejudices that retard his progress, he may still retain; but they must soon yield to truth and reason, and then nothing can prevent the present from comparing favorably with so glorious a past.

WESTERN AFRICA.

UPON the north-western corner of Africa, its shores washed on the west by the Atlantic and on the north by the Mediterranean, lies a country which, fifty years ago, was generally spoken of as the Empire of Morocco. Any European notion of an empire must, however, be strangely inapplicable to a territory for which its six or seven million inhabitants of diverse origin have absolutely no name. The Algerians call it El-Carb, "The West;" to Arab writers it was known as the Maugreb, "The Remote West;" and to the inhabitant of Morocco it is simply "The Master's Land," the *Beled* of this or that sultan: yesterday, Abder-Rhaman's *Beled;* to-day, that of Muley-Abbas. Between the status this fact reveals, and the social conditions implied by our modern ideas of country and nationality, exists a world-wide difference. And yet, but fifteen miles away from Tangier, the most northern town of Morocco, lies Gibraltar, the English fortress, with which the African town and its adjacent country are in almost daily communication.

Neither has there been lack of time in which this population might be civilized. Eight centuries before the Christian era, Hanno the Carthaginian, had brought them news of the arts and sciences of the ancient world; and later, they were never long without dealings of some kind with the great Empire of Rome. Still further, both before and since that time, scarcely ever has one of the broad, strong currents of migration, which have changed the face of the earth, failed to sweep over Morocco. Iberians from Spain; Berbers, coming down, at some date unknown, from the high table-lands of Asia; Hebrews and Syrians, escaping by thousands from successive disasters of Tyre, Samaria, and Judea; Vandals from the remote north; Arabs from Yemen, driven forth by Mahomet to the conquest of the world; blacks of Soudan, bought or stolen from their native country: — all branches of the human race have cast some rootlets into this soil. But no one has been strong enough to put an end to the predatory wanderings of the nomadic life, and replace them by stable and fruitful agricultural industry; to call forth the city from the encampment of shepherds, the lair of pirates, or the tyrant's stronghold. The cities of Morocco, familiar as are the

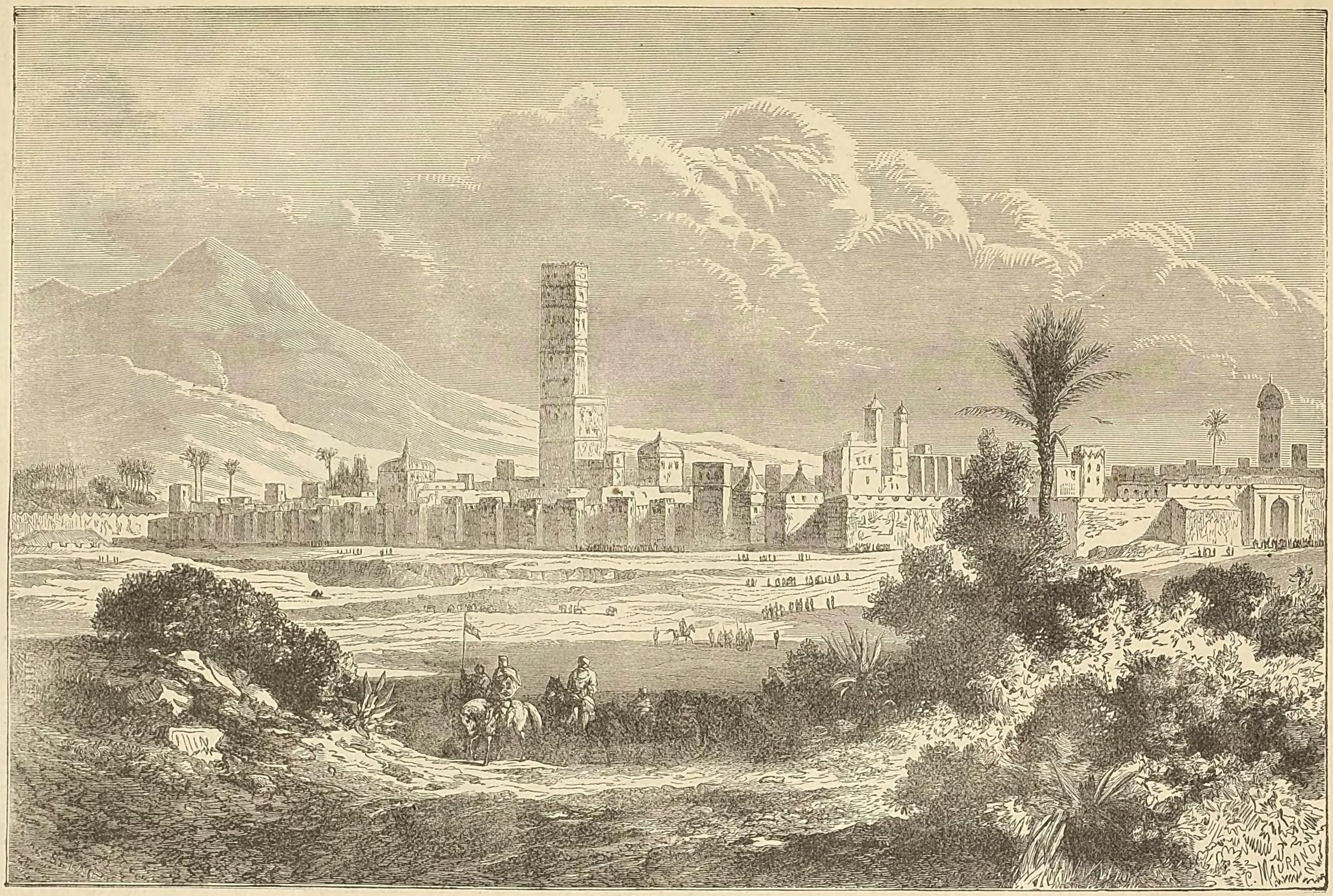
names of a few of them, were really nothing better than this; and, as they have ceased to be this, have by degrees become depopulated and have gone to decay, following the example of so many others, whose nameless ruins, on the banks of dried-up rivers, will one day astonish the archæologist and the antiquary.

At the same time, the natural advantages of Morocco are very remarkable. Its climate is sufficiently temperate and healthy; the chain of mountains, covered with perpetual snow, that lie between it and Sahara, defending it from the scorching desert winds, while a sea-breeze perpetually refreshes the western coast. The rains in winter are frequent, and add greatly to the fertility of the country, which produces corn, oranges and lemons, grapes, figs, and olives, to an extent which might return an inexhaustible revenue, were there a fixed and moderate government, and anything like industry on the part of the inhabitants.

The Moors, however, cultivate their lands only in proportion to their own personal wants, so that at least two-thirds of the country lies waste. Hence the wild palm-tree grows in abundance, of which shepherds, mule-drivers, and camel-drivers make a thousand uses as necessity compels. They gather the leaves, and make from them mats, fringes, baskets, hats, large wallets to carry corn, twine, ropes, girths, and covers for their pack-saddles. They heat their ovens with its wood, and its fruit is wholesome, though not specially palatable.

Our illustration represents the city of Morocco, one of the three capitals of the country. It is six miles in circumference, and contains sixty or seventy thousand inhabitants. A wall thirty feet in height surrounds it, having eleven gates, and towers at intervals of fifty yards. This wall is built of tappia-work, a mixture of lime and sand, of remarkable strength. The mosques, which are the only public buildings, except the Palace, worth noticing, are more numerous than splendid; but one of them is ornamented with a high square tower, built of hewn stone, and visible at a considerable distance into the country. The streets are very narrow, dirty, and irregular, the houses nearly all one story, and large open spaces, many acres in extent, lie in different parts of the city.

The Elcaissera is that part of the town where valuable articles are kept for sale. It consists of a number of small shops, formed in the walls of the houses about a yard from the ground, of such a height within as just to admit a man to sit in one of them cross-legged. The drawers and shelves are so arranged around him that when he serves his customers, who are standing meanwhile out in the street, he can reach any article he wants without moving. These shops, which are found in all the towns of the empire, afford an excellent example of the indolence of the Moors. Besides this, there are three daily markets, in different parts of the town, where provisions are sold, and two weekly fairs, or markets, for the sale of cattle. A singular feature of the city of Morocco is the existence of large reservoirs

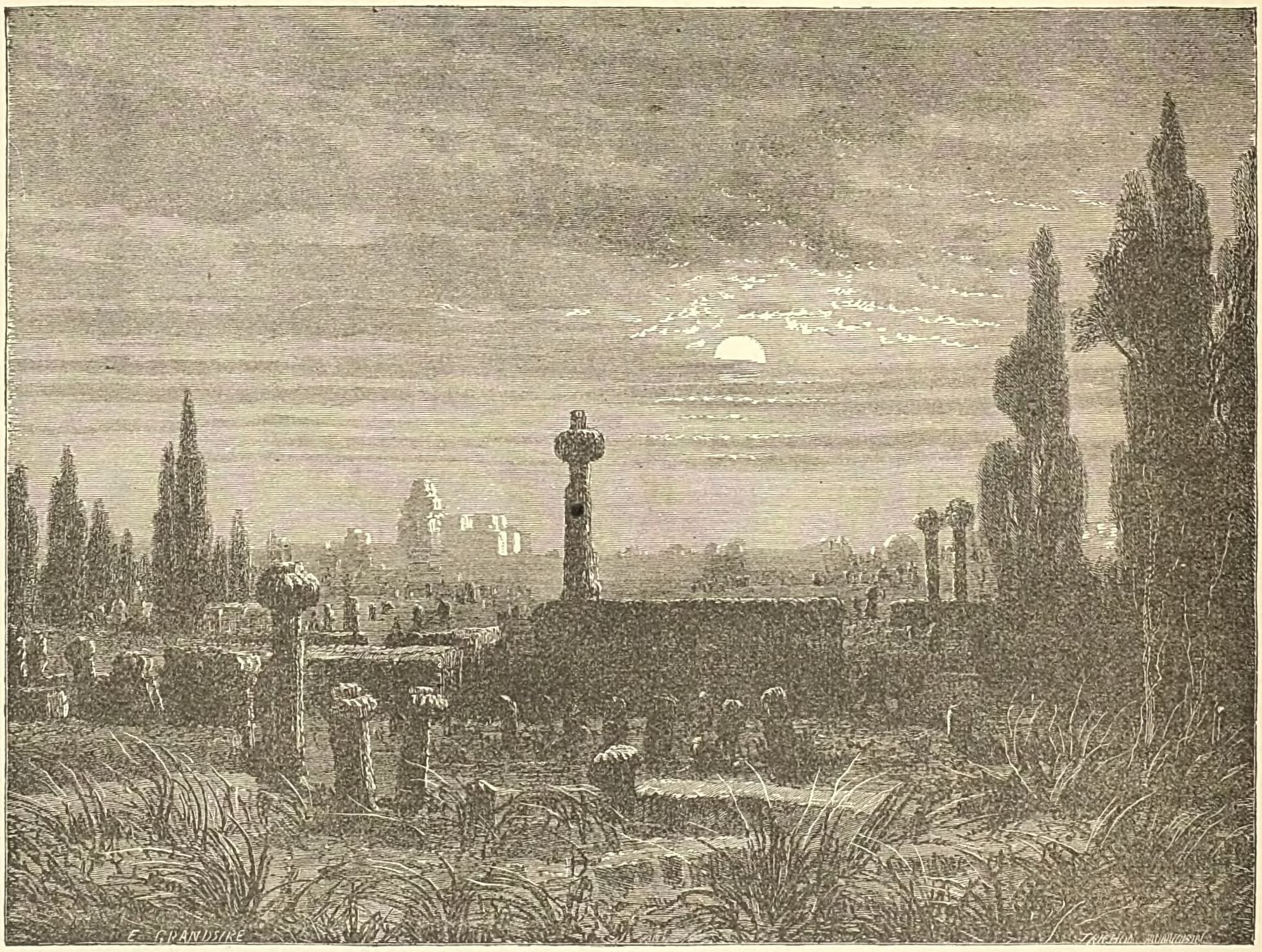


VIEW OF THE CITY OF MOROCCO.

of water, in the centre of the town as well as in the suburbs, fed by wooden pipes connected with the neighboring streams.

The city lies in a beautiful valley, having a lower range of mountains on the north, and the great chain of Atlas, about twenty miles away, on the south and east. The country immediately around it is a fertile plain, abounding in clumps of palm-trees and flowering shrubs, and watered by small and numerous mountain streams.

The Palace is an ancient building, lying outside the city, and inclosed by high walls of its own. It has several Gothic gateways of hewn stone, leading into spacious open courts, where troops are reviewed and public business transacted. The apart-



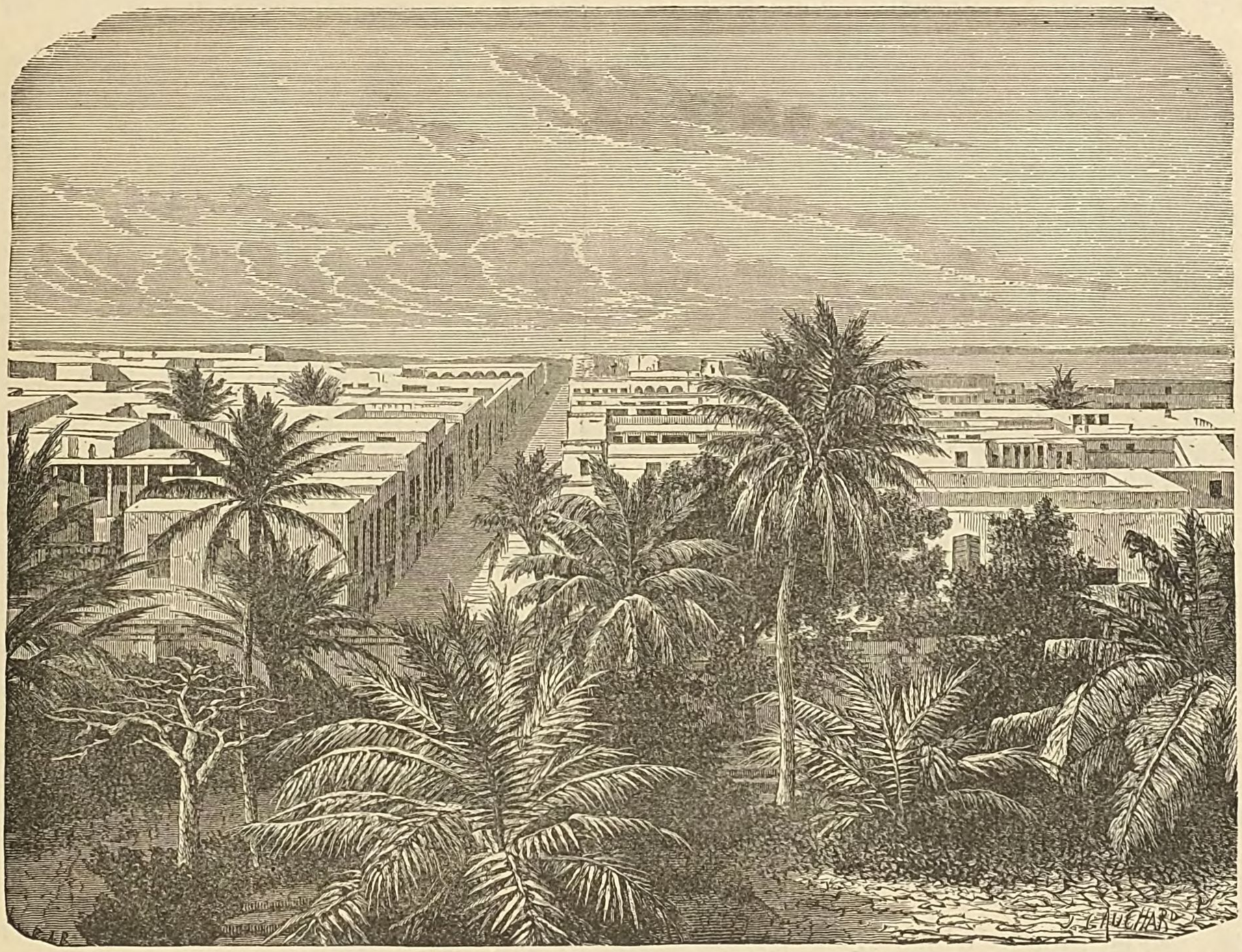
Moorish Cemetery in Morocco.

ments of the emir consist of several irregular, square, whitewashed pavilions lying in the midst of gardens. The finest of these is called the Mogadore, from the chief seaport of Morocco, and is described as a really elegant structure. It is built of hewn stone, and has many handsome windows, and is roofed with varnished tiles of various colors. The principal room is floored with blue and white checkered tiling, its ceiling is curiously covered with carved and painted wood, and its stuccoed walls ornamented with looking-glasses and watches, regularly disposed in glass cases. Handsome Moorish rugs, and divans covered with rich stuffs, are scattered throughout the rooms. The gardens within the walls of the palace are very neatly kept. They

contain olive and orange trees, and many flowering shrubs, and at every turn in the avenues that wind through them, some new fountain is revealed to sight, sending up its slender jet against the rich dark background of the shrubbery.

The second illustration we offer from Morocco represents a city of the dead, also lying outside the walls of the capital, but on the opposite side from the Palace. No Christian emblem nor word of Christian faith relieves the sombre sadness of this dreary place; rude stone pillars, surmounted by a turban, mark the Moorish tombs, and the wild beast steals through the moonlight to his lair in some neglected grave.

Following the Atlantic coast southward, in the track of the Carthaginian Hanno,



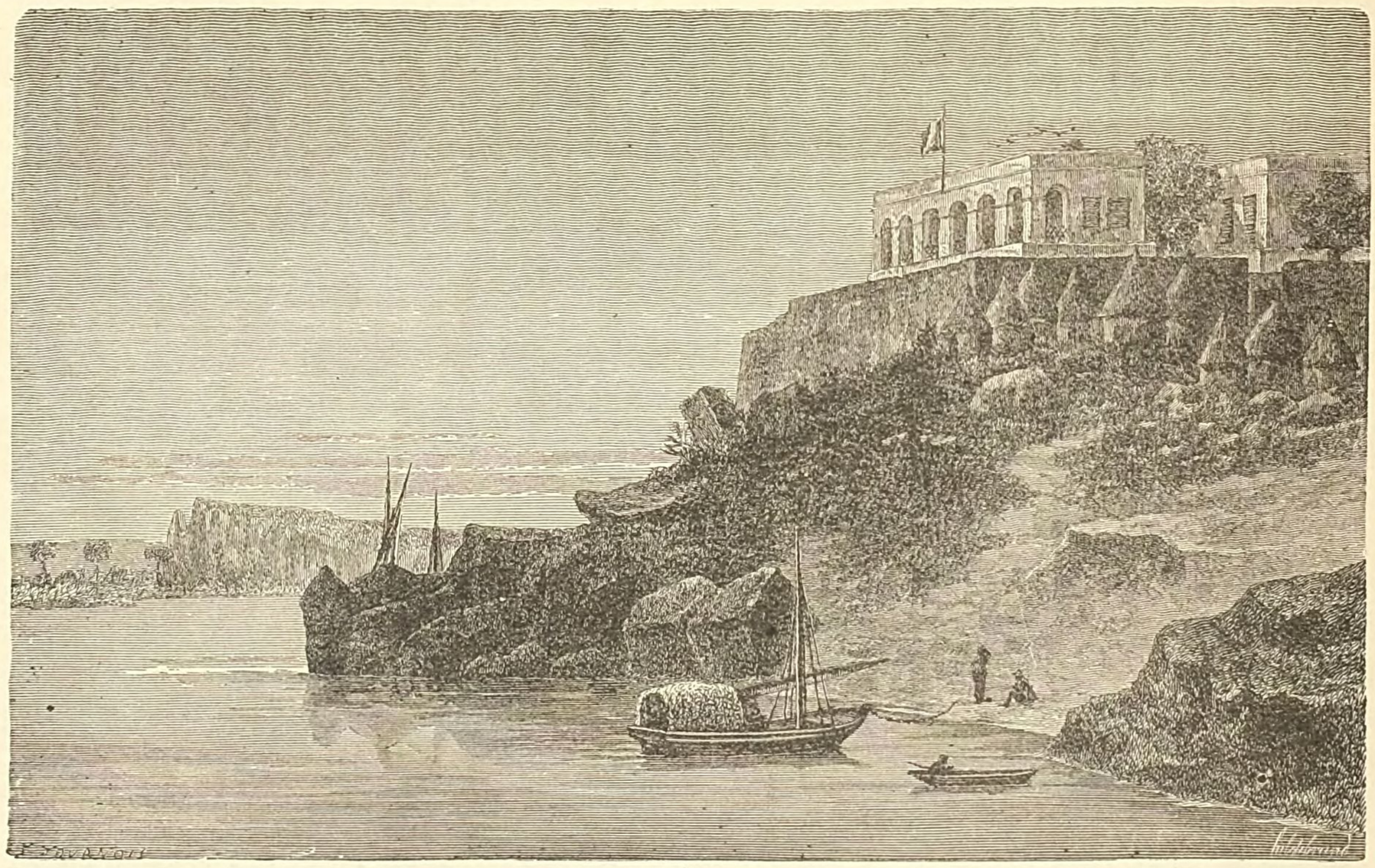
View of St. Louis.

— who, with his sixty vessels and thirty thousand emigrants, sailed past the Pillars of Hercules, in 570 B. C., and kept on his adventurous way, it is believed, as far as the modern Sierra Leone, — we come, after passing the Sahara, to the mouth of the Senegal, the great river of Senegambia.

Here is situated the French colonial town of St. Louis, erected by Europeans in the early part of the seventeenth century (see above). Originally it was little more than a fort, but by degrees quite a settlement gathered upon the island of St. Louis and on both shores of the river. The streets of the town are laid out with mathematical regularity parallel to the line of the river's bank; but the sandy

island lies so low that at every freshet the whole town used to be submerged, till quite recently dikes of brick-work have been erected, and the level of the streets raised, to bring them above high-water mark.

The Senegal makes its way to the sea through a channel which it digs for itself across a sand-bar called Barbary Point. This bar changes its position constantly, and soundings must be taken every day to render the entrance to the river safe. Even with the utmost precaution, from January to March, sailing-vessels scarcely dare cross the bar; but crowds of little fishing-shallops go out every morning, and on their return, at about three o'clock in the afternoon, it is a strange and animated picture to see them make their way across the belt of seething white water,



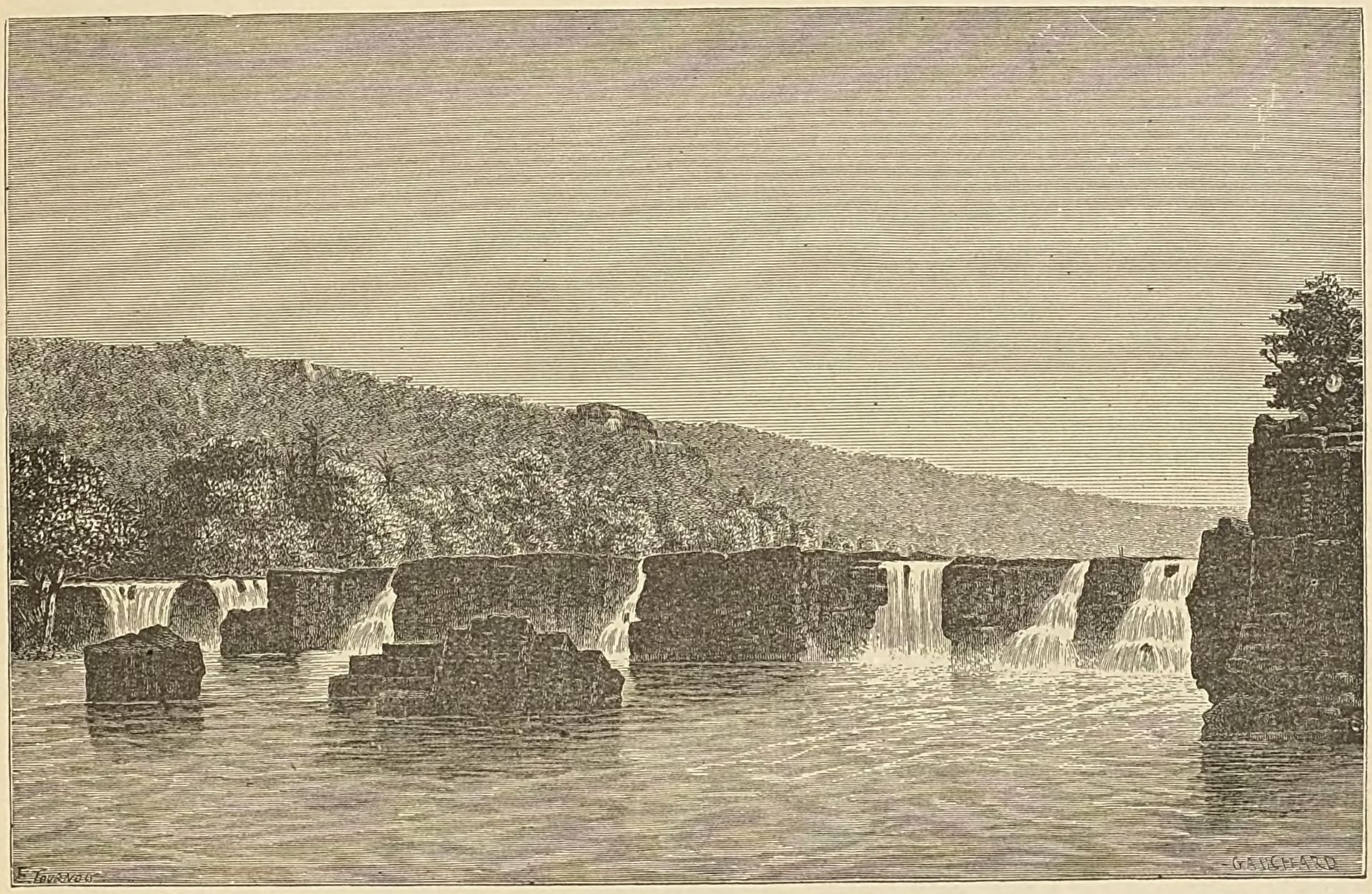
Bakel.

eighty rods broad, which lies between the quiet sea outside and the quiet river within.

In its lower course, the Senegal divides into many arms, forming low, sandy islands, but finally gathers into a single stream at the bar, which is its sole outlet to the ocean. Its banks become more animated as we ascend, and vegetation grows more beautiful. Many little French settlements have been founded, and suggest the idea that civilization will thus slowly make its way even into this inaccessible continent of Africa. About three hundred miles up the river is situated the town and fortress of Bakel (see above). From the top of the wall a beautiful and very extensive view greets the eye. The river lies, in all its windings, for many miles full in view, its rapids and cascades here and there glittering in the sun. A magnificent plain, watered by many little streams, and broken by wooded hillocks, stretches away into

the distance, and the horizon is outlined by high and misty mountain ranges of great height. The vegetation is wonderful, and equally so is the abundance and variety of animal life. Flocks of ostriches and bustards, troops of antelopes, the beautiful white pintado, three or four species of baboons, and monkeys in great variety, perform the ornamental and comic *rôles* in the great spectacular drama perpetually going on before the traveller who explores the Senegal, while hippopotami and elephants support the heavy business, and there are crocodiles and lions, panthers, leopards, and hyenas in plenty, to bring in at any moment the tragic element to an unlimited extent.

A hundred miles above Bakel is the great Cataract of Gouïna. At this point

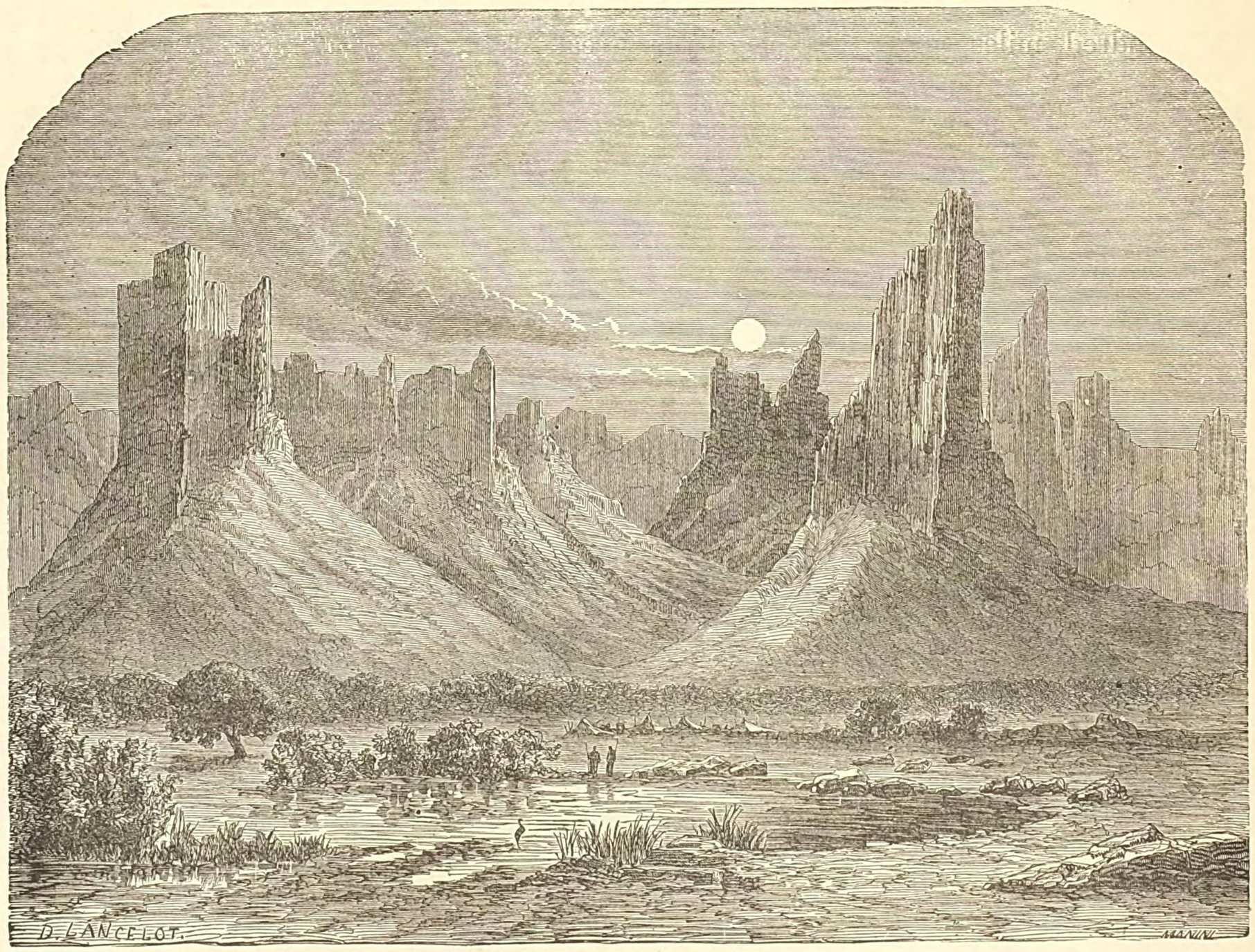


Cataract of Gouïna.

the Senegal, six or seven hundred yards in breadth, falls over an irregular rocky wall, which we give above, so broken and worn away by the water that instead of one broad sheet, there are a dozen distinct cascades, presenting a scene of extreme beauty and singularity.

The banks of the river abound in groves of superb palm-trees, of the variety shown in the illustration, page 31. A French officer, M. Mage, who explored the head waters of the Senegal about ten years ago, speaks of these trees as follows: "At about half past eight we arrived at Ouakha, a village situated in the midst of a beautiful plain, surrounded by palm-trees loaded with fruit. I decided to encamp under their shadow. As soon as we were established, Sambo Yoro asked my per-

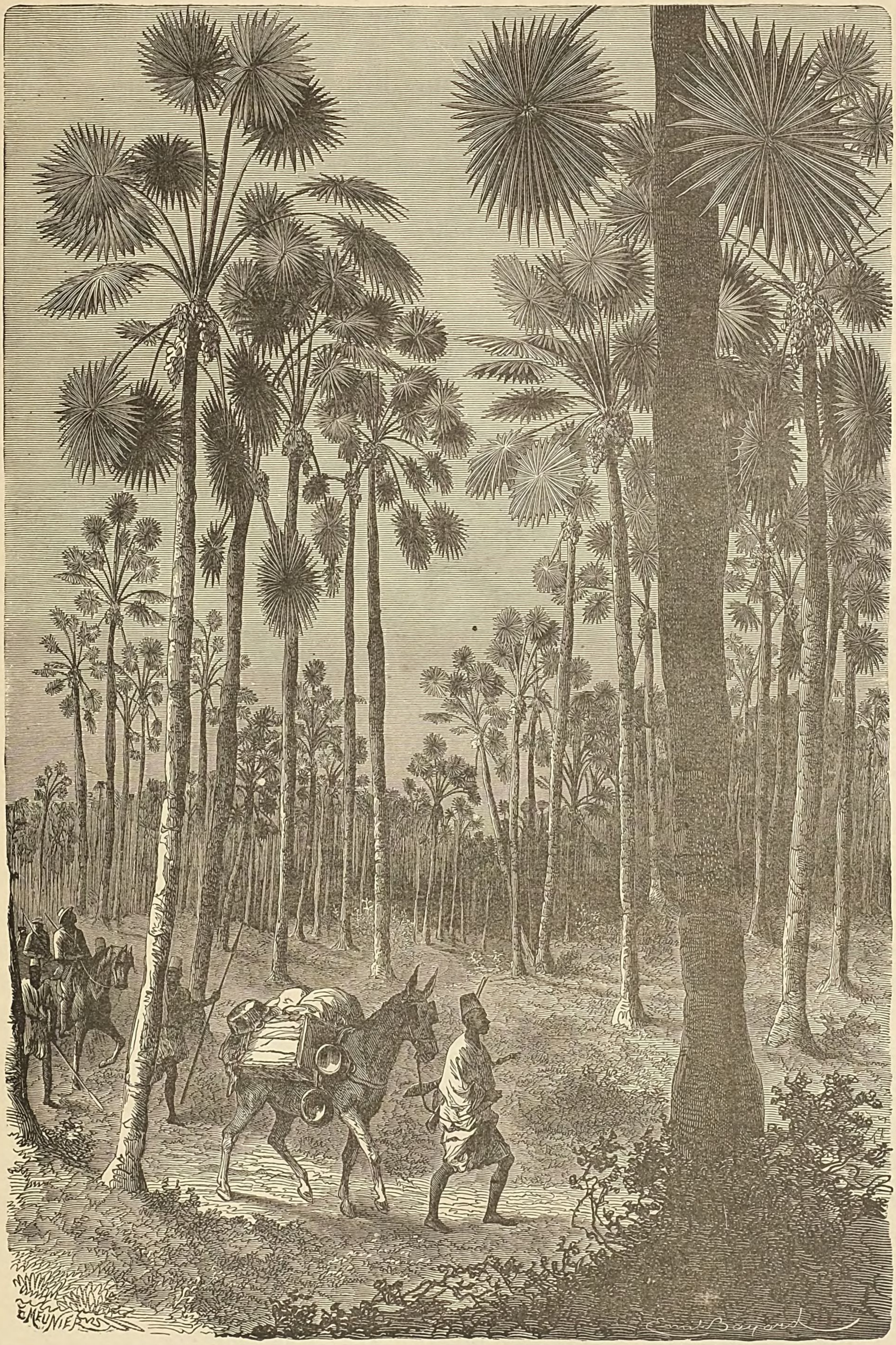
mission to cut some of the fruit. I did not object, and he climbed a small tree, for some of them about us were not less than sixty feet in height. But he had no sooner begun to knock off some of the fruit than the people of the village objected. This was the more to be regretted as it was just ripe for use; later the milk hardens, but was now liquid and fresh, and as sweet as that in the cocoanut. But Famahra, another of my men, who, like the village people, had never before tasted the fruit of this species of palm while it was fresh, now found out how good it was, and began to contest the point with his countrymen, averring that these



Hombori Mountains.

trees belonged to the good God, for it was He who had planted them, and that no man had a right to deny them to others. We proved the stronger, and knocked off several clusters of the fruit. Curious to relate, the villagers, having ventured to taste them, at once came over to our side, and in a few moments every accessible tree was plundered. I am sure our passage through the village will long be remembered, where we revealed a delicious article of food to those who had lived near it all their lives, waiting till the fruit should fall to the ground, when, instead of a delicate flavor, it has the smell and taste of turpentine, and instead of cream, offers but a stringy almond."

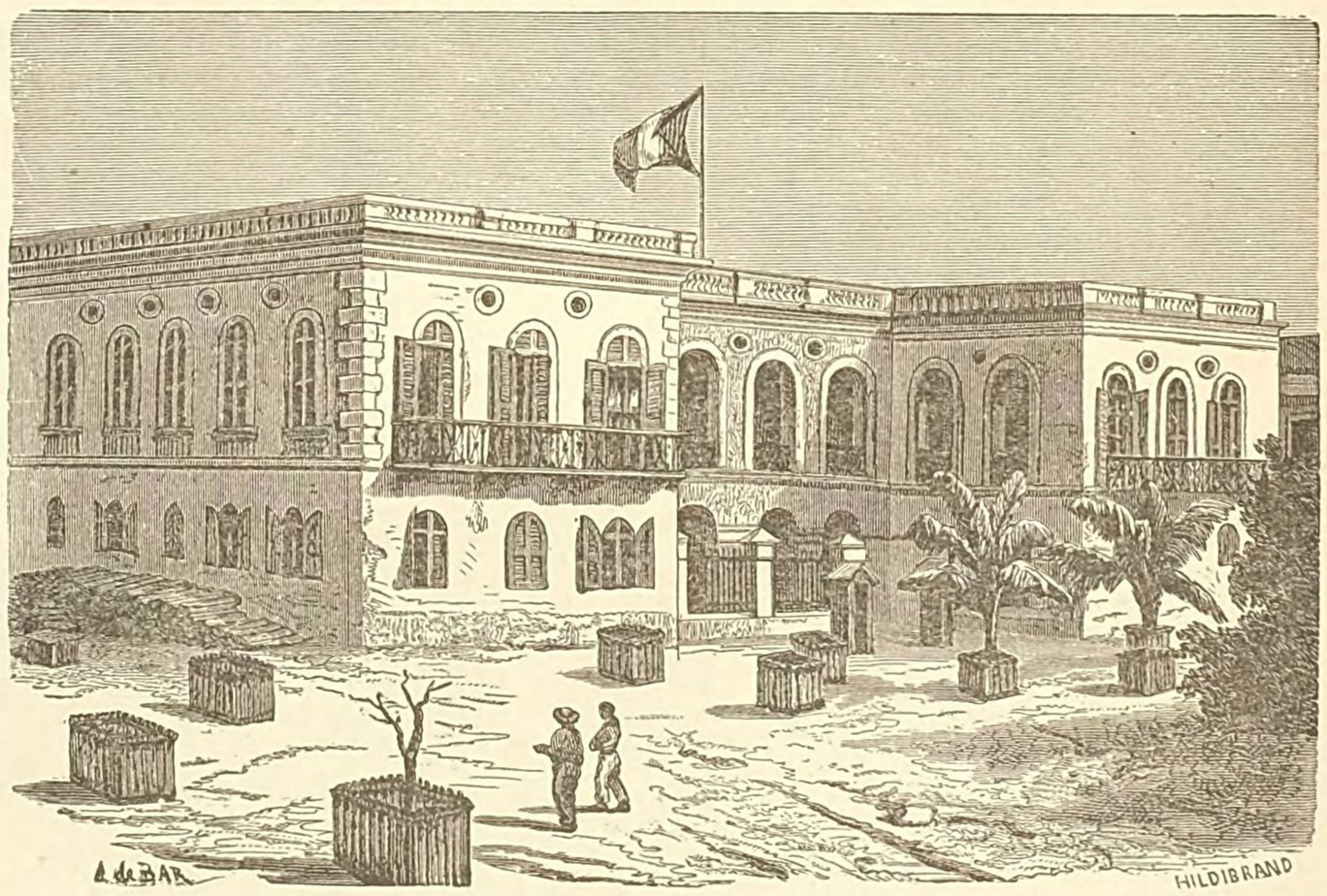
From the Senegal M. Mage made his way to the upper waters of the Niger.



FOREST NEAR THE SENEGAL.

Imagining ourselves companions of his journey, and pursuing it still further down this greatest and most mysterious of all the rivers of Western Africa, one picture, the Hombori Mountains (see page 30), haunts us like the landscape of a dream. Behind these perpendicular walls, where nature seems to have tried her hand at building mediæval chateaux, dwell one of the rudest and most untamable of the savage tribes of Africa. In the fields below they raise millet and pasture a few sheep, but for the most part they live by rapine and plunder: still another proof, if any were needed, that the most poetic and beautiful surroundings have no power to soften the savage heart of man.

Resuming our route along the western sea-coast of Africa, we round Cape Verde, and find sheltered behind it, on the south, the island of Goree, an arid rock which



Government House at Goree.

commands a superb harbor, where ships may always ride in safety, however wild the weather outside.

The island is crowned by a fort which contains barracks and cisterns for water. The Government House, which we present above, is a handsome structure recently erected. Below, near the water's edge, the town is densely populated, and a hive of busy industry. The emancipation of its former slaves has reduced the population to a hard-working life; sober and enterprising, they seek in traffic of various kinds the means of supplying their daily wants. The houses they inherit from their ancestors give them a certain degree of comfort, but articles of luxury are scarce, and the dull look of the town no longer suggests the festivities for which it once was famous.

The next illustration we present gives a view of the interior court of the post-house at Grand Bassam, a seaport on the Gold Coast. This place has been for

some time the head-quarters of French trade in palm-oil, and as such has attained to considerable importance. For twenty years a French garrison was maintained at Grand Bassam, but since 1870 it has been withdrawn.

Our last illustration from the Western Coast of Africa represents the Sacred Islands of Lake Jonanga ; only a wild and solitary scene, peopled with water-fowl, but of weird and almost tragic interest, as the central shrine of that primitive fetich-worship, the earliest and rudest of all the natural religions.

Taking for our guide a French explorer, who, starting from the colony of the Gaboon, visited, in 1864, many of the neighboring tribes, we will visit this savage shrine.

"The next day," he says, "we set out for those famous fetich islands of which

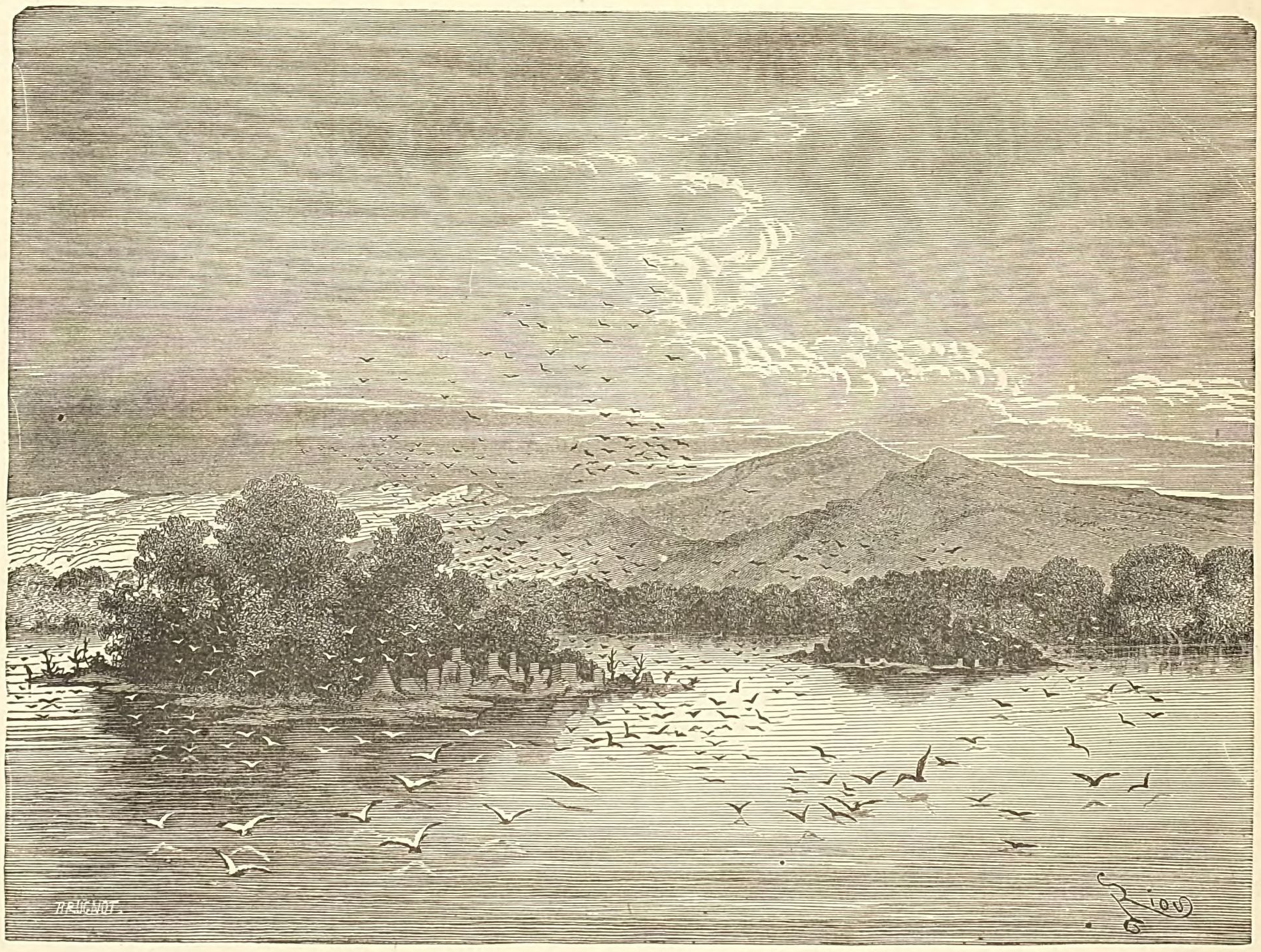
Interior Court of the Post-House at Grand Bassam.

we had heard so much, accompanied by the king of Aroumbé, who was attired in an ancient corporal's uniform, and by some dozen intelligent-looking boys, specially consecrated to the fetich-worship, and wearing a kind of livery of their office, composed chiefly of strings of beads of all colors and sizes, bracelets of red chenille, and rings of yellow copper.

"Let the reader imagine two islets, or rather two immense bouquets of verdure, mirrored in the most translucent water, and literally covered with a cloud of birds of every shape and hue, who evidently lived here in absolute security from molestation. As we sailed along, a great ibis, perched on a rock within a few feet of us, watched the passing boat with evident curiosity, rising on tiptoe, and agitating his pink wings bordered with fine bands of black. Above our heads a species of vulture of a yellowish white, and some great black birds of the fish-hawk family

circled in the air. More tranquil in their temperament, immense flocks of birds had settled upon some tall trees near the water.

"It is scarcely probable that to these peaceful denizens the sombre reputation of the Sacred Islands can be due. Along with them, or perhaps in them, are understood to dwell mysterious genii. Our sailors were evidently very much frightened as we drew near land. But Yondogowiro, the fetich king, was there to appease the angry powers. Nothing could be more droll than to see this little old negro, in his military coat too high in the neck and too short in the sleeves, arise in the boat, and stretch out supplicating hands towards the penguins, a bird particularly well suited

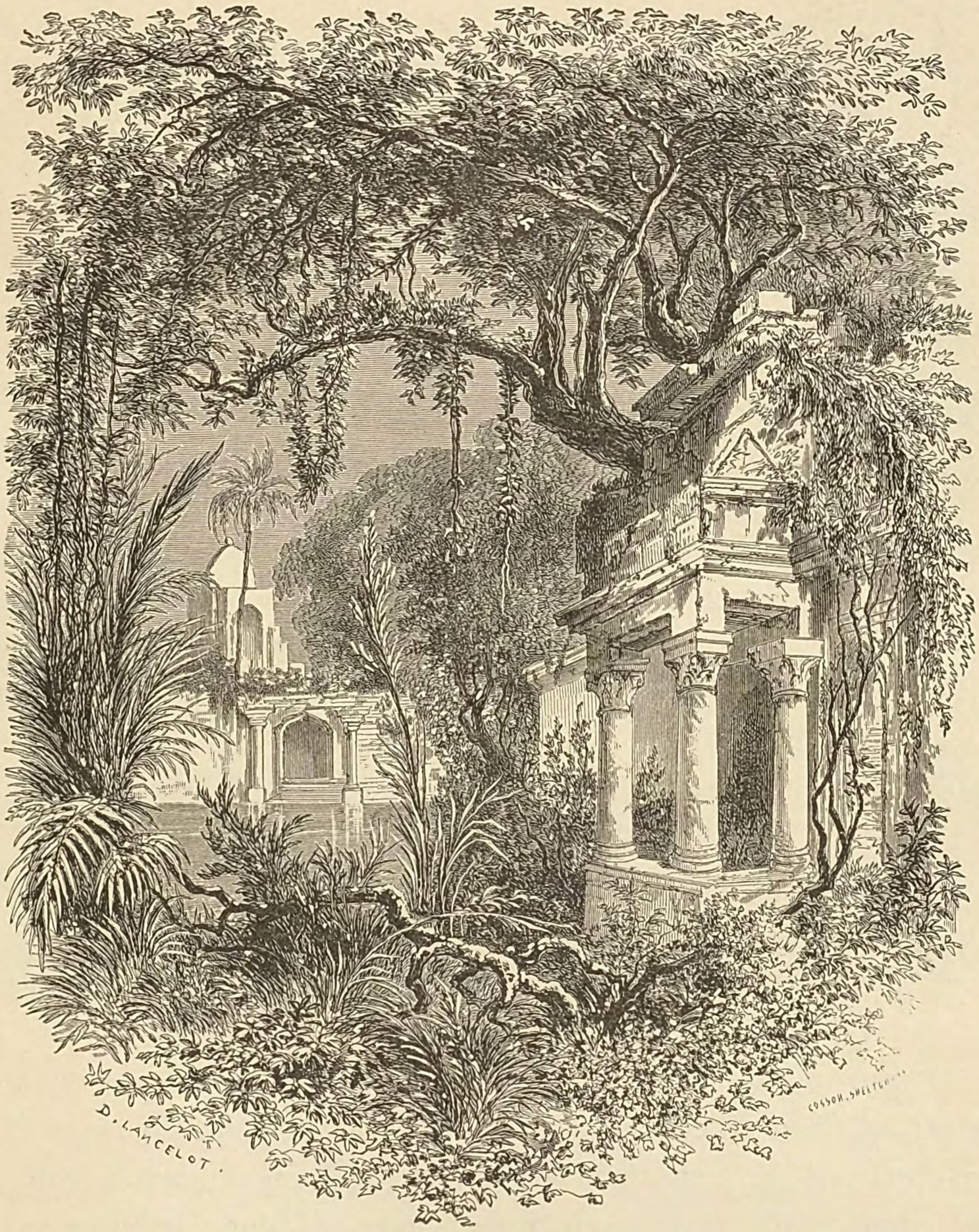


Sacred Islands on Lake Jonanga.

to receive with due gravity the homage offered him. With one hand the old man shook a little bell attached to a long handle, the emblem of his priestly authority; with the other he crumbled biscuit into the water; then he addressed to the genii this invocation: 'Here are white men who have come to see you. Do not make them ill. They bring you presents of biscuits and brandy. Do not kill them, but let them go back safe to the Gaboon.'

"The birds graciously accepted the biscuit. The brandy proved more agreeable to the fetich king than to his feathered divinities; and we were assured of high favor from the occult powers. We did not, however, insist upon our right to land on

either of the islands, where, in fact, it would be almost difficult to find a place for the sole of one's foot, so crowded was the vegetation down to the very water's edge; and after sailing around them, we returned to Aroumbé, and dismissed our escort, adding a few more strings of beads for the toilet of the lads, and a further supply of biscuit and brandy for the personal use and behoof of the fetich king."



NORTHERN AFRICA.

WE commence our wanderings along the northern coast of that mysterious continent which has for so long attracted and baffled explorers from all the civilized world, at a little town in the western district of Algeria, whose very name is French, and the date of its foundation nothing earlier than the extremely modern period, 1844.

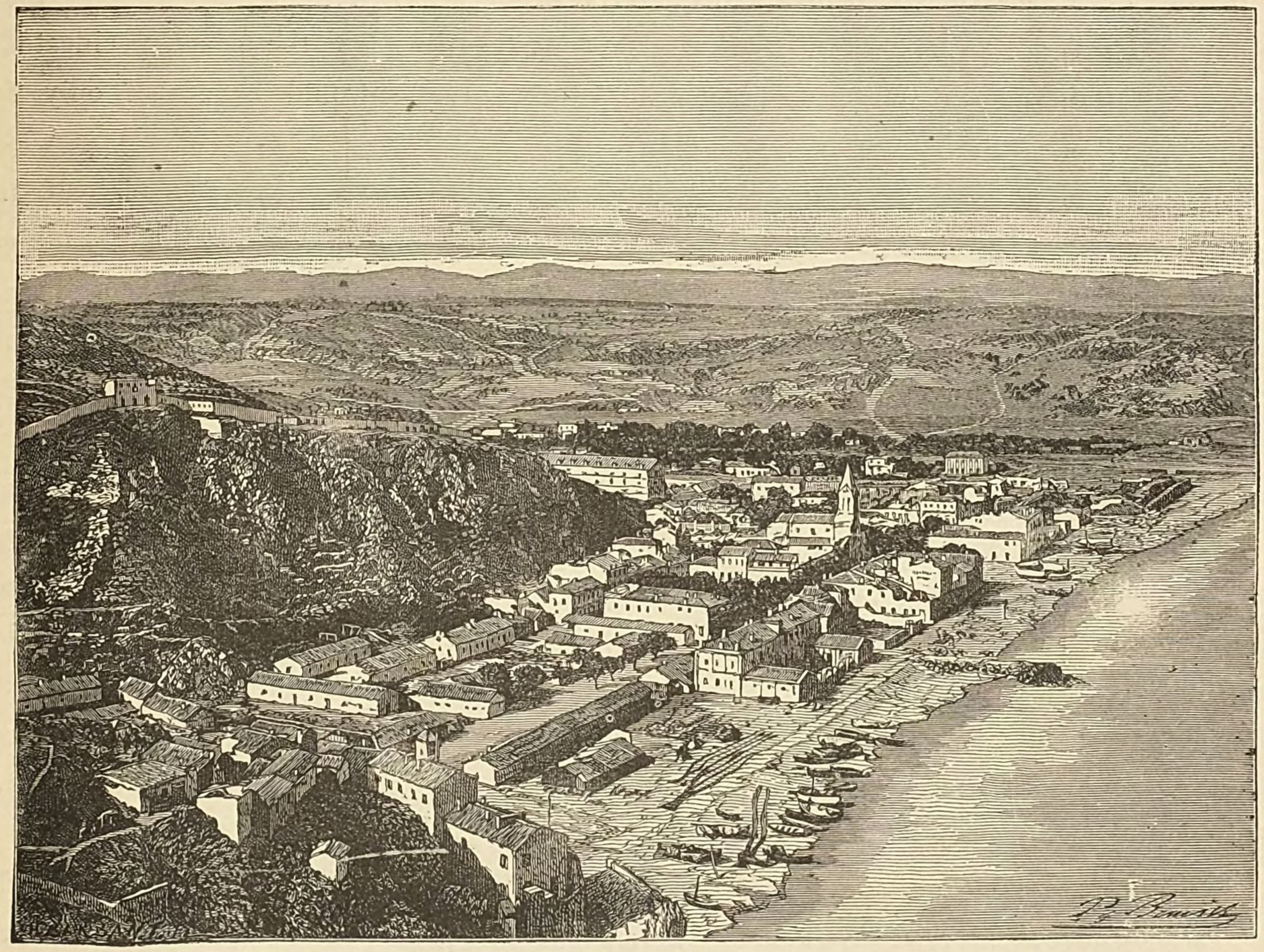
For all that, the little city of Nemours is full of historic souvenirs. Here, in 1847, resided the Duke d'Aumale, governor-general of Algeria, when Abdel-Kader was brought before him to make his long-delayed submission to French authority. Stately and silent, the Arab warrior asked but one favor of his captors: it was that he might not be taken to Algiers, where he feared the shame of being publicly exhibited as a prisoner. The following day, when the Duke d'Aumale was returning to the city after a review of the troops, the desert chief came to meet him, riding his famous black mare, dismounted, and offered him the animal, saying, "Take her, and may she bring you good fortune!"

From Cape Noé to Cape Milonia, the African sea-coast, forever gnawed and undermined by the Mediterranean waves, rises high and irregular above the sea. Here and there this rocky wall is split by a deep and narrow cleft, and down the sides of these ravines steal innumerable little threads of water, gathering below to form at last a brook of considerable size. Trees plunge their roots into these microscopic streamlets, and, in turn, save them from being drunk dry by the summer sun. It is at the foot of one of these ravines that the little city of Nemours is built, half on land rescued from the sea, half on the slopes covered with Arab gardens. Above it the cliff is four hundred feet high, and along its crest are yet found traces of some ancient city which once stood there, whose very name has long since been forgotten.

Picturesquely built, and half hidden under the great trees of its boulevards, Nemours consists of two quite separate districts: one, composed of the two streets running parallel to the sea-shore, bears the characteristic name of Bugeauville; the

other is but a collection of rude barracks built of boards, and inhabited by Jews and Spaniards. The population is for the most part occupied in fishing, in an intermittent fashion, varied by expeditions along the coast as carriers of the mineral treasures of Gar-Rouban and Mazis, or the wool and grain of Marnia. A few poor little boats are drawn up on the sand; they manage them in the way Homer describes, — a manner of proceeding unchanged along the Mediterranean sea-coast since the Trojan war.

From Nemours to Tlemcen, a distance of about sixty miles, is accomplished on horseback in two days. Leaving the sea-coast, we follow the ravine southward, amid



Nemours.

vegetable gardens as fine as the best *huertas* of Andalusia: here and there the hillside is mined, half-way up, by galleries excavated in search of veins of manganese. To this succeeds a dusty road through a rocky region, and presently we come upon "the Agha's Gardens," where guavas and bananas, the eucalyptus, and many other tropical trees and shrubs, delight the eye. With alternations of savage wildness and luxuriant verdure our road pursues its way; rarely we meet some traveller; once, a dozen camels, our first sight of a genuine caravan.

We pass the little Jewish and Arab town of Nedromah, and reach Marnia for the night's lodging. The latter town is of much commercial importance, but offers

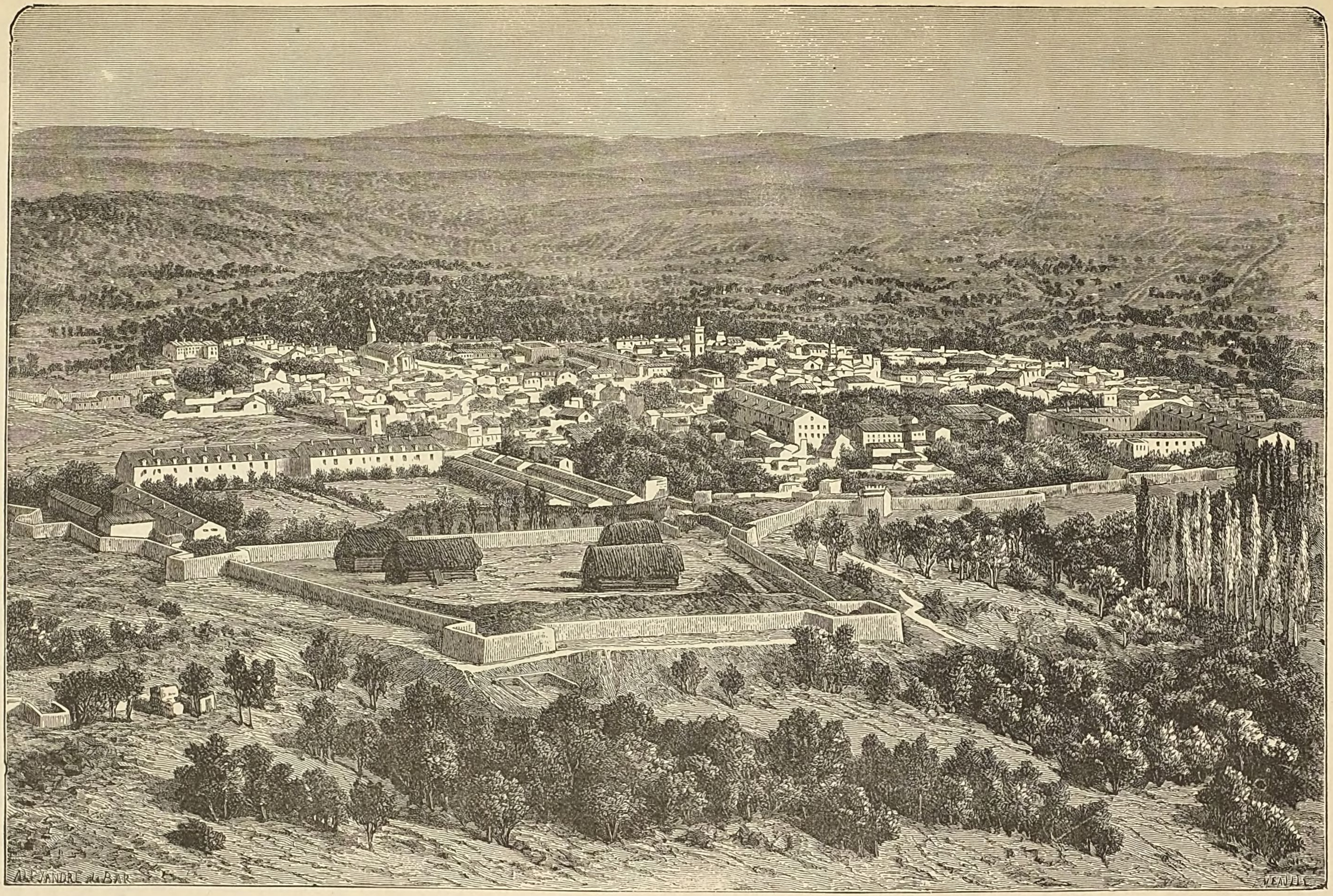
no attraction to the seeker of the picturesque, unless perhaps it be the motley crowd that frequents the market-place. Not ten miles from the frontier of Morocco, it is the principal outlet for the wool and grain and cattle of that very fertile country. No description could give an idea of the tumultuous traffic going on in the narrow streets. There is a crowd gathered from all the neighboring countries, — Europeans, Jews, Arabs, Berbers. There is an incessant trampling of horses, mules, donkeys, cattle, and camels with hoarse, discordant voices. There is a mass of every kind of merchandise, — dates, drums of figs, blocks of salt, henna, filali (red leather), haïcks, a thousand objects curious to the European eye. There is a very Babel of languages, — French, Arab, Kabyle, Hebrew, Spanish, German, and Italian, and that nondescript dialect, a mosaic of them all. O traffic, thou art the great pacificator! Anywhere else than in this peaceful market, these people would have met only to take each other's lives.

Late the next day we reached Tlemcen, which lies on an elevated plateau, in the heart of the mountainous district of Oran. It is a little city of ten thousand inhabitants: Moors and Berbers and Jews, French, and a few Spaniards and Italians. The city is very ancient, and was once the capital of an independent kingdom; but its people having offended the Dey of Algiers, he captured and burned it in 1640. and reduced the province to submission. From this time it remained Algerian, and with the rest of the province was taken by France in 1842.

The city has been greatly improved since the French conquest; it possesses a fine English Garden, very excellent *cafés*, a public library, and a museum. At the same time the native quarters of the town abound in narrow streets and miserable one-story houses. The Jews in Tlemcen are numerous and often wealthy; they are, as everywhere, intelligent, and many of them speak and write the French language fluently, and nearly all the European houses that have been built in the town are their property.

We visited the library and the museum, which are under the same roof with the city offices. The library contains twenty-two hundred volumes of the highest merit. All the master-works of the human intellect are here, placed gratuitously at the public service, and the city council votes annually a considerable sum for the increase of this precious collection. The museum occupies a magnificent hall, used on occasion for balls and concerts. It contains many archæological treasures, among the most important, some onyx columns of great beauty, lately discovered in excavations at Mansourah.

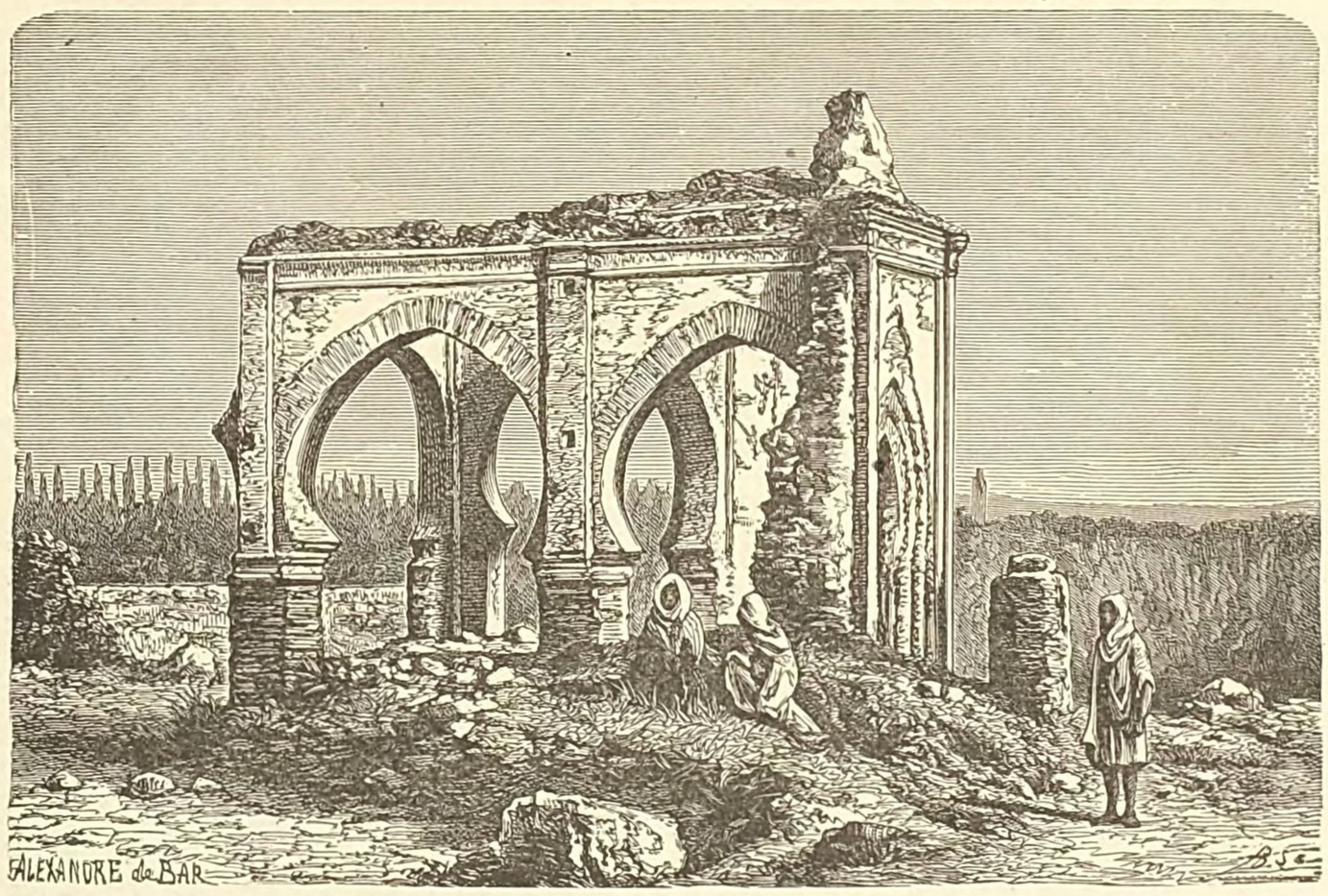
The climate of Tlemcen is remarkable for extraordinary variations of temperature, — variations as marked from one day to another as from one season to another, and often occurring, indeed, in the same day, especially during the summer. Rains are abundant; they commence usually in October, and continue, with alternations of fine



TLEMCEN.

weather, till May or June. The spring rains and the morning fogs, which last into July, contribute to give the vegetation a character for permanence which astonishes the traveller, during the heats of an African summer. It is a great surprise, after having traversed extensive regions utterly parched and withered by the heat, to see the green luxuriance of Tlemcen.

It was the middle of March when we first arrived, and the very prime of the season. A villa outside the walls attracted us as one of the most beautiful residences we had ever seen, and we obtained permission to visit it. Always and everywhere an abundance of water; magnificent trees, the ailanthus, the sycamore, the acacia, and many great chestnut-trees, all in full foliage on the 20th of March. The garden walks were edged with thick borders of violets. This is *par excellence* the flower of Tlemcen, and grows to a surprising size and in great perfection. In De-

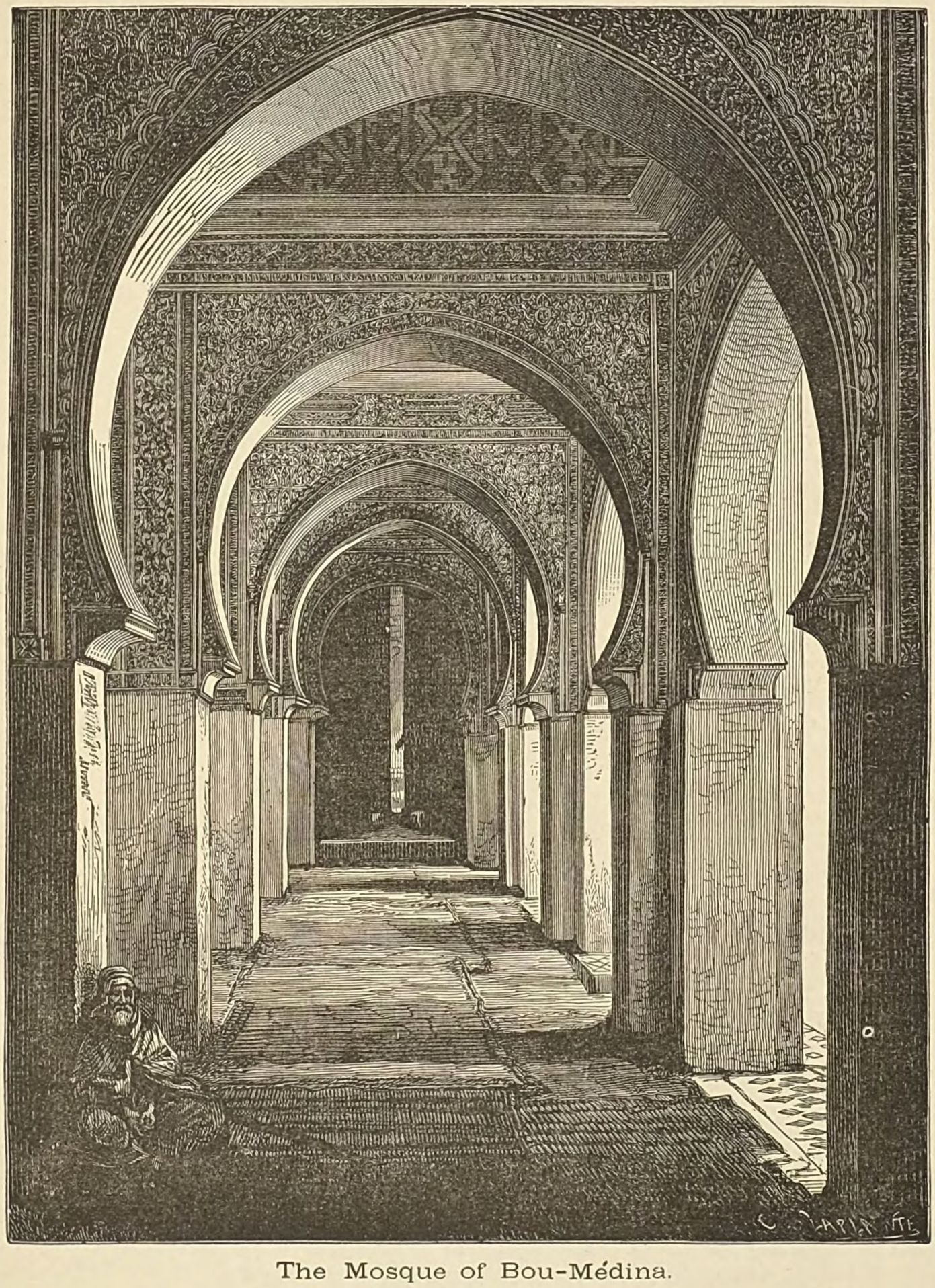


Sidi-Bouisrak.

cember, the narcissus fills the air with its penetrating fragrance; soon, periwinkles spread out their blue petals, surrounded with brilliantly green leaves. Then begin the violets, which last three months, giving place at last to the lilacs, the Mahonia of the gardens, and the fleur-de-lis of the meadows. Then rose-colored and white acacias have their turn, and everything grows with a lavish luxuriance that defies description.

Of all the trees the olive seems most abundant. We questioned concerning their number in the immediate neighborhood of the city. "Fifty thousand at least," was the reply. The territory of Tlemcen contains fifteen hundred and fifty-six acres of gardens and orchards, six hundred and thirty acres of vineyards, over five thousand acres of irrigable land, and thirty thousand acres of pasturage. Much of this fertility is due to artificial irrigation; one hundred and eighty-four reservoirs of various sizes have been constructed, and nearly two hundred miles of canals.

During our stay at Tlemcen we made many expeditions in the neighboring country; among others, to the village of Bou-Médina, where exists a mosque famous throughout the country, and well worthy of its renown. On our way thither we passed an Arab cemetery, where, scattered among the tombs, stand a few *koubbas*, or Mahometan hermitages, in various stages of dilapidation. They are occupied by *marabouts*, or Moslem saints, and much frequented by the faithful, seeking saintly inter-



The Mosque of Bou-Médina.

cession with heaven. Some of these *koubbas* are very pretty, especially that of Sidi-Bouisrak (see page 40), which looks quite like a Christian chapel, and has a bright little fountain springing beside it.

Bou-Médina is perched midway up the side of the mountain-range which overlooks Tlemcen. It must be owned that a nearer view of the village is very disenchanting. The streets, rudely paved with angular stones, are actually breakneck. Most

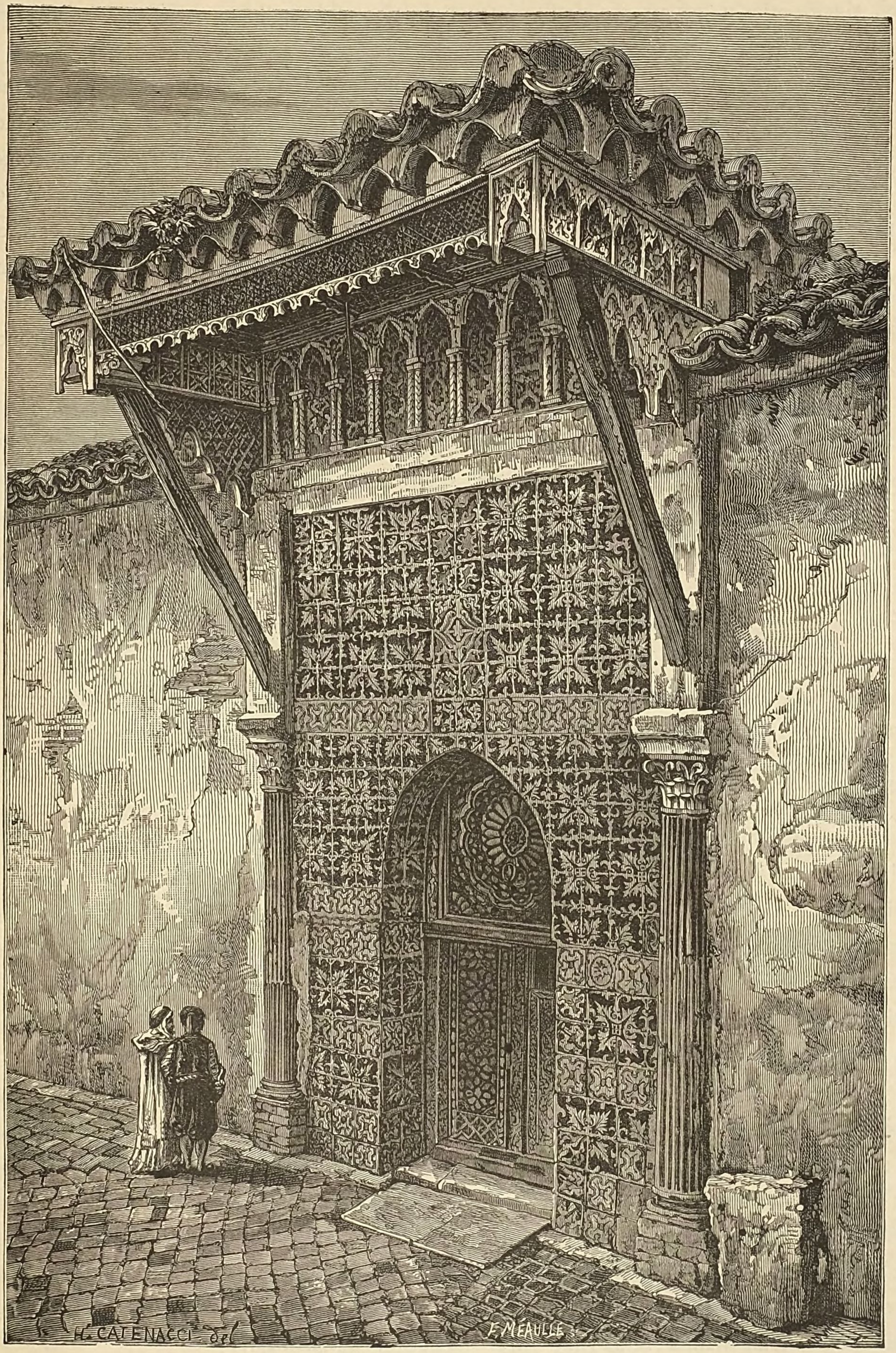
of the houses are in ruins. Those which remain standing are miserable and squalid What is really admirable here is nature. Let the tourist take the trouble to climb the minaret of the mosque; on its top he will enjoy a splendid panorama, to which no words of ours can do justice. The day we saw it great clouds at intervals were veiling the sunlight, and their wide shadows swept across the verdant fields, while a light breeze bent the tall grain. When one bathes thus in the pure, warm air of heaven, how cold and gloomy seem the long cloisters of the mosque! and yet one must do it justice: from the heavy knocker of the outside door, to the vaulted roof of the inmost shrine, all is remarkable in this vast building. The door, lined with plates of copper, — an object of great pride to all Mussulman beholders; the immense court, the inner cloisters, the marble columns, the arabesques of the arches, the iman's chair of painted wood, — all must be examined and admired.

We were introduced into the tomb of the saint whose name is given to the mosque. Imagine a dark little crypt, divided into two equal compartments by a carved wooden screen. Half-way up the walls are covered with tiles; the rest is adorned with stucco ornaments, washed with green or blue color. A heavy Moorish carpet covers the ground. A small lamp, hanging from the vaulted roof, feebly illuminates this lugubrious place. Green flags, ostrich-eggs, mirrors, wax candles of all colors, complete the decoration of the funereal chapel. In the further compartment stands the tomb of Sidi Bou-Médina, covered with drapery of red damask.

The dervish Bou-Médina, after having lived at Mecca and at Bougia, was carried away violently from the latter city by the Sultan of Morocco, Yacoub-Almanzor, who took offence at the powerful influence exerted by the saint. Arrived with his escort at the banks of the river Isser, he fell ill and died in the year 1198; his body, transported to the village which now bears his name, was interred there with great ceremony. The miracles which are attributed to this holy personage are innumerable.

The old guardian who did the honors of the mosque is usually to be seen seated in the doorway of the outer court. He thus passes his days motionless, save that he slips through his fingers the beads of his rosary; and at sight of him one recalls that sentence from the Arabian Nights: "He who enters into the shadow of night and death renders his pain brief, for good fortune comes not with running to and fro." The worthy man, however, emerged, for our sakes, from his wonted habits. He offered us cakes and honey. We drank water from the sacred well, and slipped a *douro* into the old man's hand, and at our departure he accompanied us into the street with many benedictions.

The door of the mosque (see page 43), is worthy of attention. Two fluted columns with Corinthian capitals support the pilasters, and under the projecting roof,



DOOR OF THE MOSQUE OF BOU-MÉDINA.

which shields the doorway, wooden caissons, deeply and finely carved, are set in with very happy effect.

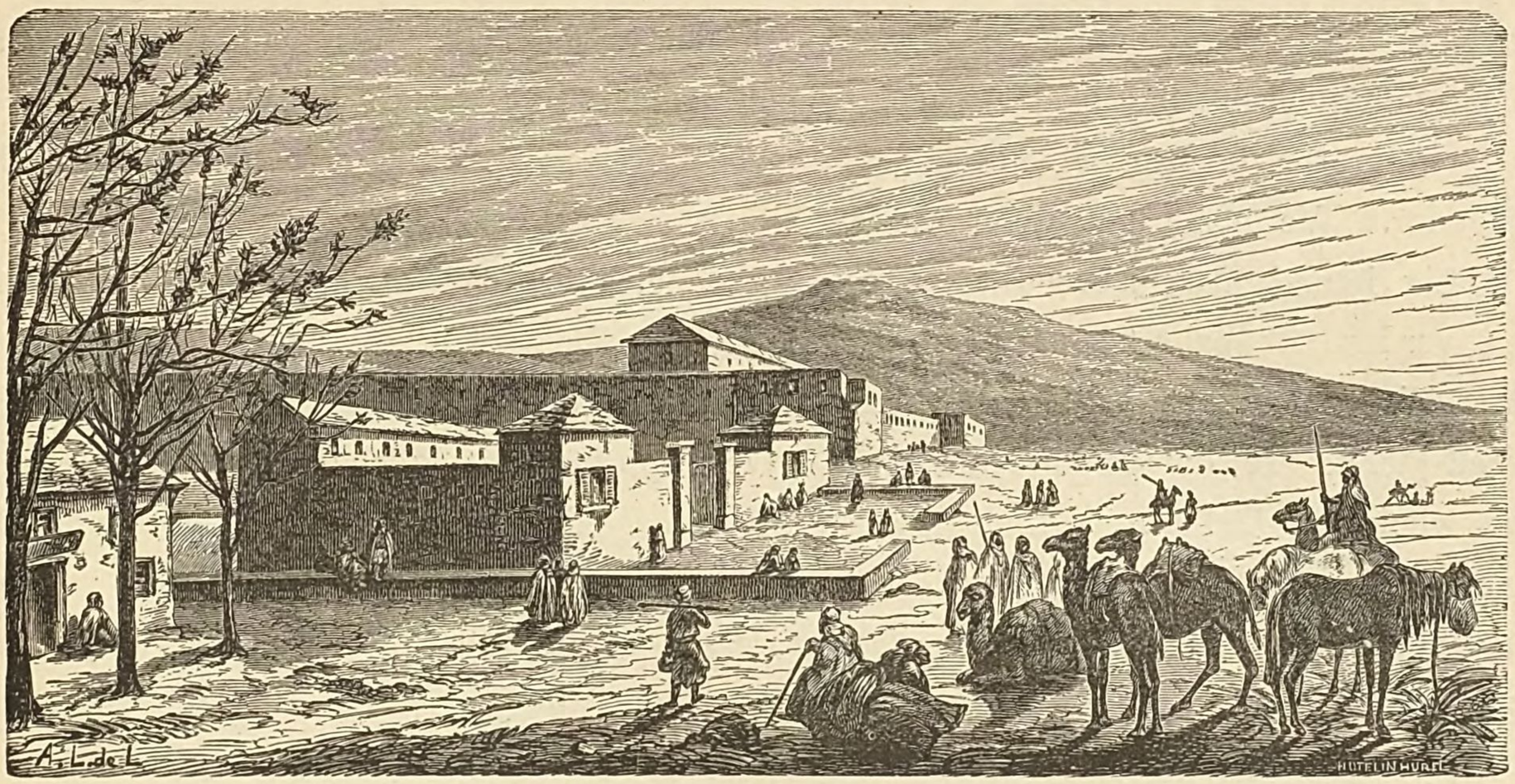
Meantime the desert allures us. Day by day we look southward, and imagination pictures the Sahara. But the journey is difficult and expensive. Prudence bids us be content with Algeria, and with Tunis and Tripoli. On a sudden there comes news that an expedition is to start in a few days from Géryville, the last French outpost towards the desert, and make a fifteen days' journey into the very heart of the Sahara, as far as Ouargla, "the Sultan's Oasis." Safety and reasonable economy thus secured, we throw all scruples to the winds, and the best speed of relays of Arab horses brings us to Géryville, in time to be duly accredited to the French officer in command, and obtain permission to join his party.

Géryville itself is little more than the rude fort shown in the illustration. It was founded in 1852, by the French, as a tangible proof of their resolve to retain Algeria against all comers from the desert, and as such it has served its purpose well. The expedition to which we attached ourselves was under the direction of the French commandant at Géryville, accompanied by a staff of French and Arab officers, two mining engineers, and an historical painter. The regular troop consisted of thirty *spahis* of the Arab department, two orderlies, and a cook. The irregular troop was composed of a hundred horsemen, among them the suites of the Arab chiefs accompanying the party. Men and horses must be furnished with provisions for the entire journey. Four camels were allowed each horseman, to carry the provisions and water necessary for himself and his horse, six skins of water being required for each horse and two for each man. Furthermore, a hundred camels were employed in the transportation of a reserve of water, cartridges, engineering instruments, palanquins destined for sick or wounded, medicine, and ropes. This reserve was placed under a special guard, and at the sole disposal of the commandant. A flock of sheep, and a troop of a hundred unladen camels, accompanied the reserve. The camel-drivers were about one to every three camels, and were provided with weapons. In all, our force consisted of a hundred and fifty horsemen, two hundred and eighty camel-drivers on foot, ten spare horses, and eight hundred and sixty camels.

When all was ready, an inspection of each one's provisions was made, and all deficiencies required to be at once supplied. Skins and casks were counted and tested. The convoy was organized in squads of camels, each one placed under the charge of a chief camel-driver, who was made responsible for all that was intrusted to him, a list of the same being made out. Lists also were made of the horsemen and their camel-drivers. The water-skins of the reserve were marked. The camels of the entire column also received a general mark, to which was added for each a distinctive one, Arab habits rendering this precaution indispensable.

At daybreak the convoy set off, the horsemen following at eight o'clock. The

first day's journey brought us to Aïn-Farch, a beautiful spring of water flowing at the foot of a rocky hillock thickly overgrown with trees. Our second bivouac was outside the little fortified town of Bou-Alem. Our third day's journey brought us to the foot of the Salt Mountain, and the entrance of the Kheneg-el-Mel'h, or Salt Defile. The hill gives its name to the river that flows at its base, and strongly impregnates the water with its own substance. From our tents we looked up to the steep declivities of the Salt Mountain: great bare white spaces alternated upon its side with rocky masses of a clear bluish-green, and others of delicate purple. These varieties in color gave the mountain a very singular aspect, the more remarkable since it overlooks a chain of hills of soft outline and dull coloring. Our young



Fort of Géryville.

painter admired, and our savans talked learnedly of the time when this saline upheaval must have occurred.

The following day we entered the defile, to emerge finally upon the great Sahara, for the chain which this defile traverses is the last series of hills separating the Dahara, or little desert, from the great desert, the Sahara itself. Kheneg-el-Mel'h is celebrated among the desert tribes. Besides being one of the few thoroughfares leading from the province of Oran into the desert, and consequently very much travelled, it is the place whither a crowd of tribes come to obtain their supplies of salt. At the entrance of the defile we are shown the ways on which General Pelissier's guns were slid down steep places; further on, they point out hillocks bearing names of celebrated bandits who once haunted the place; at every step heaps of stones, surmounted by a few fluttering rags, indicate that here fell some human being under the assassin's bullet; while legend adds supernatural terrors, making this

Pass the home of Djinns, or nocturnal spirits, some friendly, but others horribly cruel. All these associations form a lugubrious escort to the lonely traveller who traverses it by night, and makes the journey a thing to be dreaded. The length of the defile is about twelve miles: we keep along in the bed of the river, or just on its bank, amid clusters of tamarind-trees and rose laurels. From point to point the slender thread of water spreads out into great ponds, where ducks and flocks of aquatic birds sail or rest quietly as we go by.

When we reach the foot of the Salt Mountain, there is a perceptible smell of the sea. The mountain, rent and jagged on this side, rises almost perpendicularly above the water, displaying its crystalline and rainbow hues, which bring out in striking contrast the blue-green masses of the transversal strata and the great white ravines. As we go on, the dry bed of the river is covered with saline deposits, and the vegetation of the banks becomes marine. We seem to be drawing near the sea, while the horizon widens, and the great spaces of the desert appear in all their splendor. We come out upon the Sahara.

Six hours' march brought us to Tadjerouna, a fortified town, upon an oasis without verdure or palm-trees, which is lodged in a shell-like depression in the midst of the plains. The wealth of this oasis consists in farms watered by freshets of the Oued-Mel'h. A dam upon this river gives opportunity, in the great rains, to lay the whole of Tadjerouna under water; the saturated earth is at once put under cultivation, and two months bring to maturity magnificent harvests. Besides this resource, the inhabitants of the oasis are the storekeepers of the Ouled-Yagoub, a powerful tribe with whom they are allied by interest and by blood. While the town preserves the grain of these nomads for a trifling remuneration, the latter lead along to their scattered pasture-grounds the flocks of their allies with their own.

On leaving Tadjerouna, we entered upon a march of a hundred and sixty miles, to be followed day by day, without obtaining any new supply of drinking-water till we should arrive at Metlili, the principal oasis lying between us and Ouargla. We left Tadjerouna at ten o'clock in the morning, under a sky whose horizon was filled with heavy and threatening clouds. At four in the afternoon, as we drew near our bivouac, the air was dull and the heat suffocating. The sky had grown black, and distant rumblings portended the coming storm. The camel-drivers crowded their animals close to one another, to avoid their dispersal during the tempest. Just as the head of the column reached the camping-ground, a whirlwind of sand swept down the long line; it was the advanced guard of the storm. A reddish mass, like a great aërial wave, rushed towards us, throwing off sand in every direction. The camels were made to kneel in rows. The first gust passed like a flash of lightning. The men sheltered themselves behind their animals, covering their faces with a corner of their cloaks. The horses instinctively turned their backs to the wind.

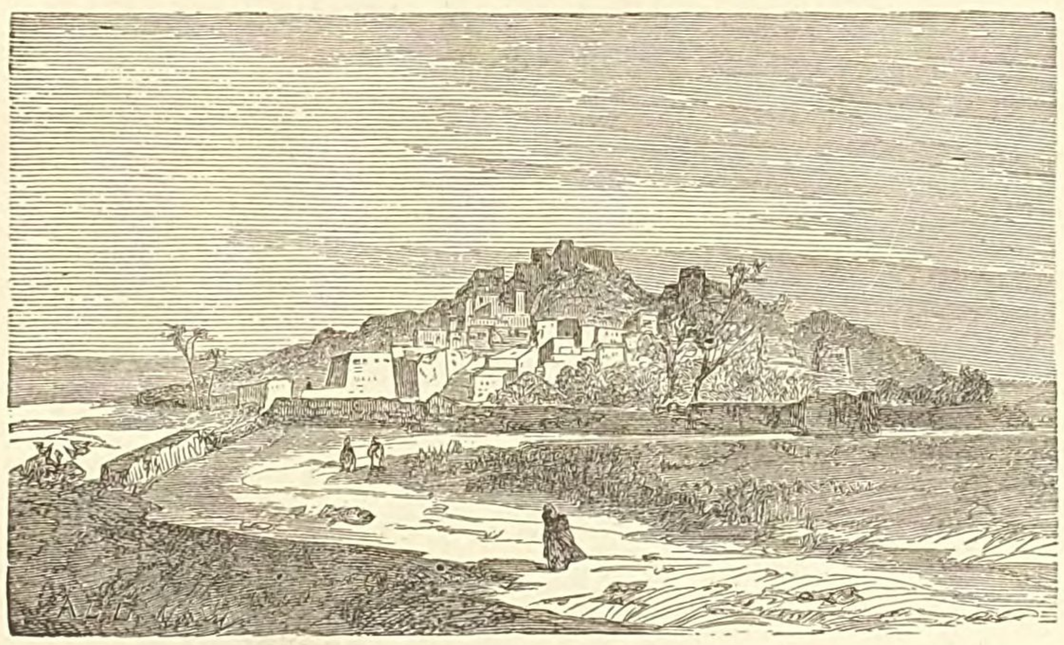
OASIS OF METLILI.

A second later the whole fury of the whirlwind was upon us, and we were in complete darkness. The sand was so thick in the air, that one could not see two paces' distance. A clap of thunder, frightening some of the horses, added at this moment still further to the terrors of our position.

The whirlwind lasted five long minutes; we remained motionless. At the end of that time a few big drops of rain began to fall through the sand, and in some degree dissipated the dry cloud which was stifling us. We shook off one layer of dust after another, and soon a heavy shower of rain and hail refreshed us, and cleared the atmosphere. The dripping horses found relief to their thirst, and settled willingly to browse the thick grass which grew in tufts around our camping-ground.

The next day we followed the bed of the Oued-Maïguen, a river which never, even in heavy rains, is aught but a river of sand; and yet it is a boon to the traveller, even such as it is, for not only is it a clear and easy road, but there are always plants growing on its banks, and trees enough to furnish wood for the bivouac fire.

On the morning of the third day we reached the river Metlili, and after an hour's march along the low ground, suddenly appeared before us, not half a mile away, the groves of palm-trees which mark the oasis. A hurrah of joy welcomed the sight; all our fatigue was forgotten; the people from the town and the gardens came out to meet us, and a scene of indescribable tumult and delight followed. Soon, however, order was restored. We had but just entered the forest of date-trees, and it was intended to encamp under the walls of the town. Arrangements were made to have the great reservoirs filled along the road, so that the camels could be watered and the casks replenished; and then, after a leisurely repast, we resumed our march, which became a triumphal procession. Groups of women and children, perched on garden walls, screamed to us with delight; the mounted portion of our party responded, bowing to the saddle-bow, and singing at the top of their voices; a troop of men ran beside us, now and then discharging fire-arms into the air, — and all this under an archway of palms, in the midst of peach and apricot trees, in an atmosphere of delicious perfume, and, best of all, in the shade, after so many long hours under a sunshine like molten lead.



Bou-Alem.

While our camp was set in order, we explored the town and its environs. Metlili is, at first, a strange contrast to one's expectations. Its musical and dainty name had suggested visions of a white, well-kept, little city; but what we found was a crowd of houses, many of them in ruins, collected upon a hillock around a shabby mosque. Once habituated, however, to the poverty of the houses, we began to admire the position of the town. The hill which forms the oasis is situated at the point of intersection of four valleys. As far as the eye can see, these valleys are covered with gardens, and from the minaret their soft luxuriance forms a charming picture. Two streamlets, which the rains call into life once or twice a year, meet just outside the town. These brooks are the wealth of the oasis. The gardens are so laid out that, in freshets, all the waste water pours itself around the palm-trees. Stormy days are holidays in Metlili. The coming of the water is announced by mounted messengers; every one hastens to see the influx of the welcome flood. A storm means a fortnight's rest and an assured harvest. Unluckily, storms are rare, and when heaven does not take charge of the irrigation, man must attend to it. The watering of the gardens in Metlili is a very arduous and almost continuous labor. The system employed deserves description; an idea can thus be given of the daily tasks of the population of the oasis, and of the importance necessarily attached to the few and rare rains they enjoy. There is at Metlili only an underground body of water, lying at a depth which varies from forty-five to sixty feet. Every garden has its well and reservoir. The palms must be watered at least every second or third day, and it is the same with the fruit-trees. As for grain and vegetables, they are cultivated in beds and watered twice a day. To keep the reservoirs full requires almost constant industry. Night and day one hears the creaking pulleys of the wells; men and women, children, beasts of burden, are all employed in drawing water, and relays are arranged to avoid a moment's cessation. The apparatus employed is of primitive simplicity, but very well suited to its purpose, being only a great skin, at one end wide-mouthed, at the other having a long narrow neck, and used like a siphon. It is raised and lowered by ropes passing over pulleys, and the drawers of water, harnessed to these ropes, walk down an inclined plane, thus raising the filled skins to the top of the well.

By this wearisome proceeding the whole territory of the oasis is watered, and the labor is incessant. In spite of these difficulties, not an inch of ground is wasted. Not to lose from the productive soil even the little space required by the dead for their last resting-place, interments at Metlili are invariably outside the oasis, upon the steep slopes of the surrounding hills, where tombs of solid masonry are constructed in regular rows curiously suggestive of the terraced vineyards of Southern Europe.

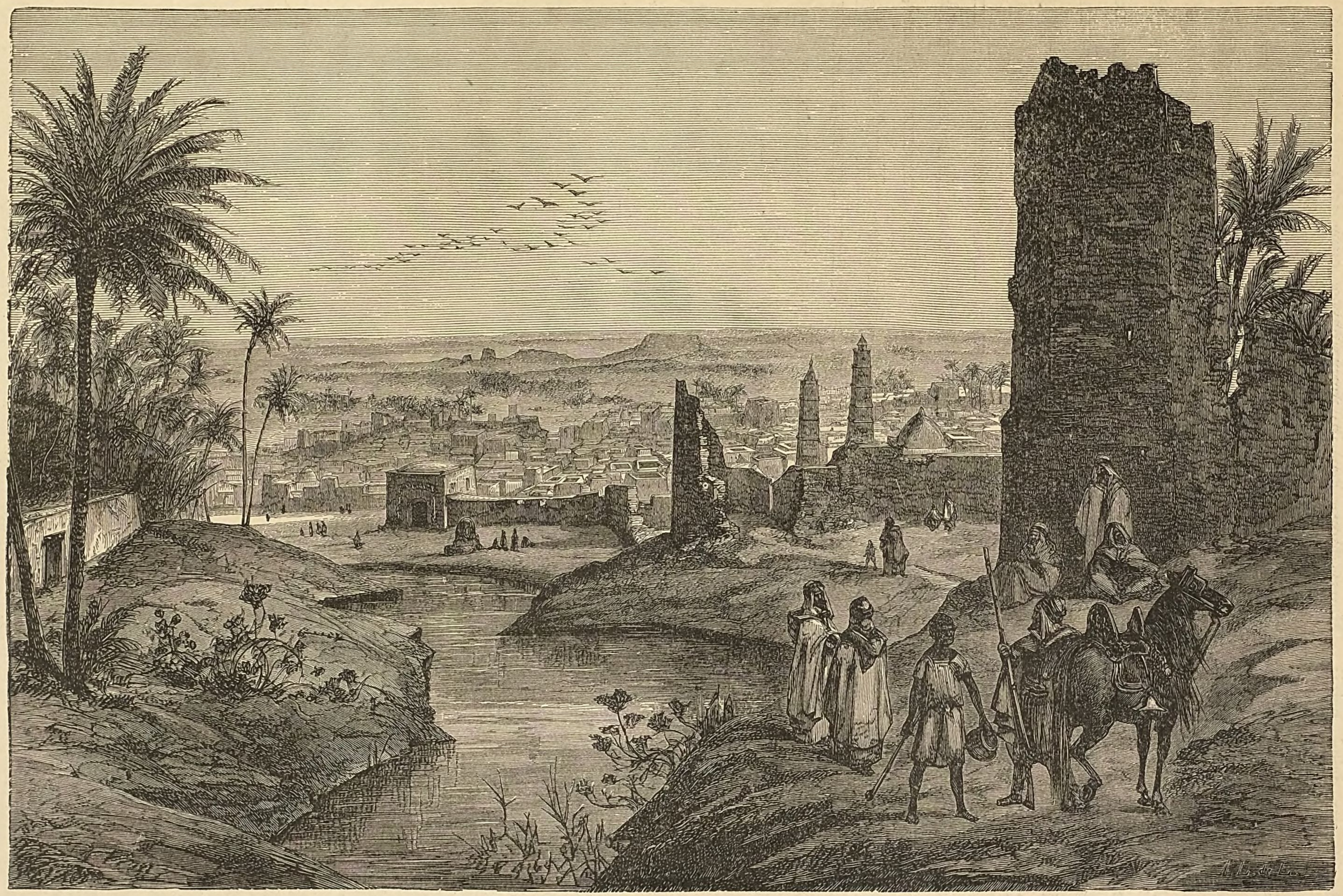
Three days we spent at Metlili, and then, forth once more into the desert! One might say much of the strange variety and strange monotony of the three days that

followed; but a desert journey is an experience that no pen can describe, and we shall do better to leave it to each reader's imagination.

About two o'clock in the afternoon of the fourth day we came out into the low ground where lies Ouargla. An immense forest of palm-trees stretched away into the distance, and on the edge of this forest, as we came near, we discovered quite a little army of soldiers, with flags and music, drawn up to receive us. A lively fusillade was our welcome, responded to, on the part of the approaching column, by the wildest extravagance of every kind.

On entering the city we made our way to the mosque, where an improvised *diffa* was immediately offered us. While preparations for this repast were going forward, we scaled the highest minaret to get a look at the town. This ascent was not an easy matter to one unused to such exploits. The tower of the minaret is a pyramid of sun-baked brick; the stairs which lead up to its summit are composed of rough trunks of palm-trees, wedged between the outside wall and a central brick pillar, the steps being something like two feet high. The space which this spiral staircase occupies is not over eighteen inches in width; one must stoop to avoid striking against the stairs above one, and this in almost total darkness. Reaching the summit, we came out upon the platform which surrounds an ornament formed by the top of the central pillar; this platform is about ten inches wide between the railing and the pillar. The whole breadth of the top of the tower is not more than five feet, and on this platform eight of us were perched to examine the city. We were eighty feet from the ground, and as the minaret oscillated slightly in the wind, it must be owned a feeling of insecurity came over us. However, by way of compensation, the view was superb. From our elevated position we overlooked all the palm-trees, and the city spread out beneath us its vast circular extent, in which we could plainly distinguish the three distinct quarters which compose it. Each of these quarters is a town within a town, separated from the others by walls and gates. In former times, gunpowder often spoke from one to another, and the sultan was powerless to bring back order. The palace of the nominal sovereign, situated on a little eminence, was externally only a strongly fortified citadel, from which he rarely dared emerge. Within, however, the place was comfortable enough, having all that a sultan of Ouargla could reasonably demand. Now, alas! there is nothing left of it but ruins: one small minaret standing; a few rooms that serve as shelter to some destitute creatures, and inscriptions here and there upon walls whose plaster has not yet fallen off. From the top of the minaret the general aspect of Ouargla is that of a bombarded and dismantled town.

After partaking slightly of the entertainment that had been prepared for us, consisting of milk, dates, and date-wine, we visited in succession the different parts of the town. The streets are narrow, and at many points it would be impossible for a horseman to turn. Scarcely any but one-story houses are to be seen, and they are invariably



OUARGLA.

made of sun-dried brick. House-doors are in many cases adorned with rude plaster ornaments, and with inscriptions from the Koran.

Ouargla is far from being a salubrious abode; strangers are liable to severe attacks of fever: the inhabitants themselves suffer every year from this malady, but not in a form so violent. It is believed that much of this ill health is caused by the quality of the water, which is nearly destitute of air. Here, as in most of the oases of the Sahara, the stranger is advised not to drink water until it has stood over night, and *grown cool.* This seeming paradox is explained when we understand that the artesian wells of Ouargla are all of tepid water, so that, standing a while, it does grow slightly cooler, besides becoming aërated, which is really the more important point.

All the way along the low ground of the oasis there exists water at two distinct depths: a few feet under ground there is stagnant, saltish water, of little use, even for irrigation; but at the depth of a hundred and thirty or forty feet, wherever the inhabitants choose to dig, an inexhaustible spring repays their industry. There are in the oasis nearly four hundred of these artesian wells; some of them, however, are choked by sand, and from time to time the dangerous and difficult task is ventured upon of clearing them out, — a work undertaken by men especially trained to it, who sacrifice their health and sometimes their lives in the endeavor.

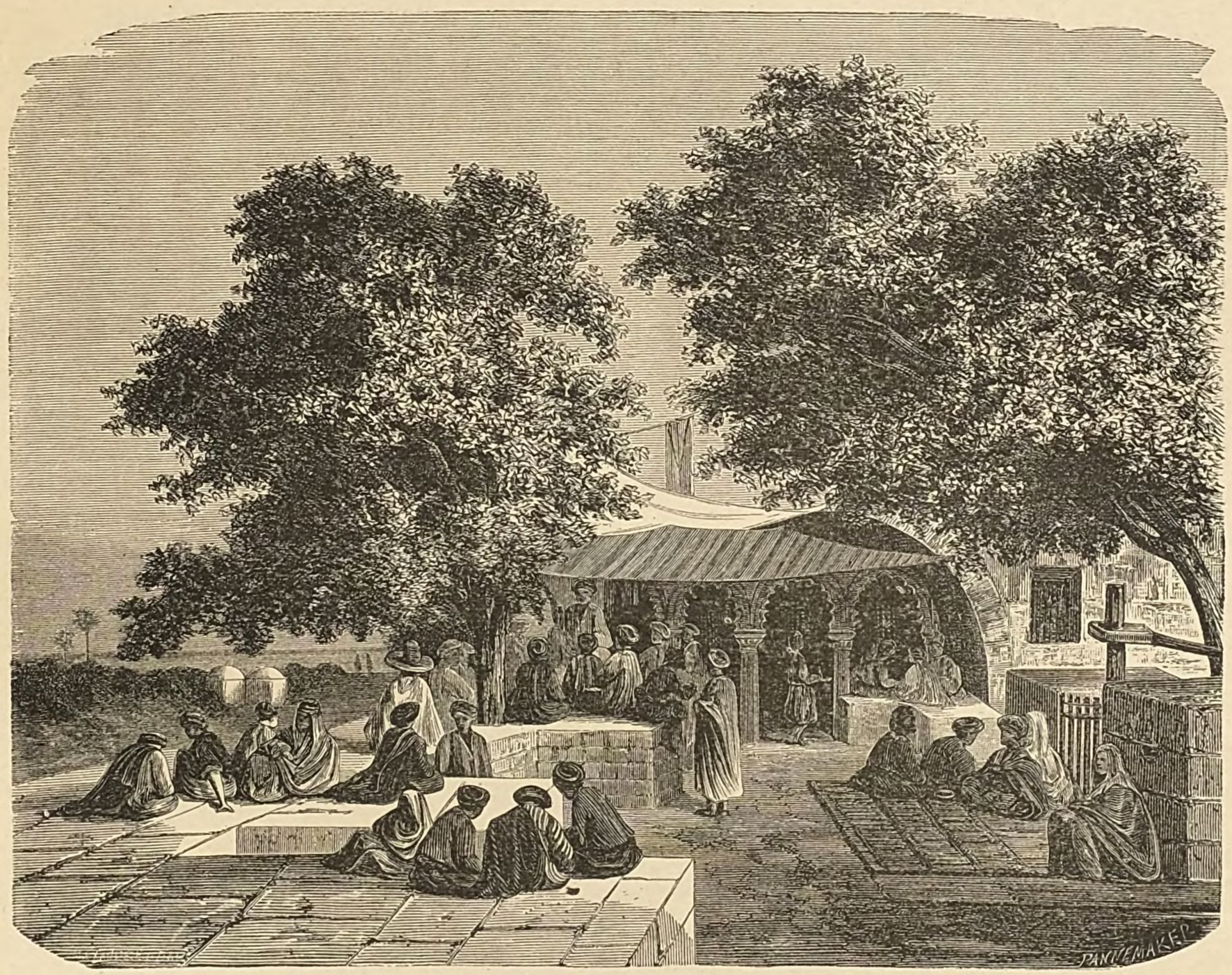
The population of Ouargla is of varied origin. Four distinct races can be observed: Arabs, Mozabites, Aratins, and negroes. The Arab is the same here as elsewhere, idle and poor, a true Ishmael of the desert. The Mozabites are refugees from M'zab, — rich, intriguing, and heretical. The Aratins are the primitive people of the oasis, a very peculiar race, — black, but of a bluish-black not existing among the tribes of Soudan. The negroes are importations from Central Africa; they are slaves, but extremely content with their position, and indisposed to accept opportunities for freedom.

The inhabitants of the oasis all live by agriculture. If they are rich, they superintend the labors of their negro or Aratin farmers; if poor, they work themselves. A few of the Mozabites have dealings with caravans, buying and selling woollens, cereals, dates, spices, and cotton. The men alone are employed in the gardens and farms, while domestic labors and weaving of cotton and woollen fabrics are the share of the women. The caravans which come to buy dates have but little ready money, and pay in wool and in cereals; this wool the women then weave and make up into garments, not alone for home use, but also in turn to sell to the caravans for foreign export. The Mozabites are skilful tanners too, and from sheepskins bought of their nomad neighbors they make extremely durable sandals, saddles, cartridge-boxes, Arab boots, and shoes.

All industries, however, are made subservient to the great necessity of the siesta. During the larger portion of the day, absolute quiet broods over the town. Every

corner has its stone bench and its recumbent sleeper ; the women sleep within their houses, all doors and windows being tightly closed against the heat. Towards sunset the population revives, and the evening is gay with rude music and dancing. Festivities are prolonged far into the night; finally, everybody goes to sleep in the open air, the rich upon their terraces, the negroes and Aratins on the sand in the garden walks, ready to resume work at a minute's notice. This notice is given by the *muezzin's* call to morning prayer.

The people of Ouargla are of friendly disposition towards one another and towards strangers; they are hospitable, honest, and very devout, at least in external observances, but, withal, idle and pleasure-loving.



Café at El-Mersa.

One cannot be insensible to the strange charm of a life in this city of the desert. How easy it would be to linger "in this hollow lotos-land," and dream away one's existence in a repose so absolute! Fortunately for us, a stronger will gave the signal for departure. Again, the desert journey, with its alternations of march and rest, of sandy wilderness and the very luxury of verdure; again, Algerian cities and highways ; finally, one bright morning late in May found us at the sea-shore,

awaiting the steamer from Marseilles, which touches at three or four Algerian ports, on its way to Tunis, our next point of destination.

The voyage was monotonous; but as we drew near land, our interest revived at sight of many characteristic little pictures of Mediterranean coast-life. The old sea-port of Carthage, El-Mersa, gleams white from under its trees. Here there is a palace, the ordinary residence of the Bey, and in its gardens the great scarlet geraniums grow tall as shrubbery. Also, many cafés, with picturesque striped awnings, whither the Tunisians repair to enjoy the sea-breeze.

Landing at Goletta, the seaport of Tunis, we were transferred to the railway, of English construction, which connects the port with the city, and were soon flying along the submerged shore of the Lake of Tunis, an inland basin of salt water, whose surface reflected a sky of gold and azure. No painter could desire a more beautiful scene than this approach to the city. The white walls of Tunis, flooded with sunlight, stood out clear cut against the cobalt blue of the mountains of the background. These white tints were soft as satin; here and there the mountains had shadings of rose and light blue ; upon the lake were swimming flocks of beautiful birds, — grebes, sea-gulls, cormorants, and pink flamingoes.

A thousand memories wakened in one's mind. Here once rode at anchor Phenician fleets and Roman galleys. The great shades of Regulus and Scipio, Hamilcar, Hanno, Julius Cæsar, and Cato, seemed to possess the land, and fill with poetry all that unknown shore. Nor were more modern souvenirs lacking. Here died St. Louis, and here St. Vincent de Paul lived as a slave.

In the railway station of Tunis the realities of the moment seize upon us with irresistible force in the persons of Arab and negro porters, who crowd and vociferate, and snatch from our hands even the most trifling articles of luggage, in the hope of gaining a few *karoubles*. Our first view of the city shows an Oriental aspect in everything, even superior to that seen in Algeria. In spite of railway, and telegraph, and lighting by gas, in spite of the Frankish quarter with its European houses, its Sicilian and Maltese residents, one finds perpetual novelty in these narrow lanes, crowded with donkeys and camels, these covered market-places, where the Arab, Berber, Negro, and Jewish population strive incessantly to overreach and browbeat one another. The business activity of some of these markets — for example, the bazaar of perfumes, of woollens, of Morocco leather — is much greater than that in any city of the Barbary coast. The Israelitish element, amounting to about thirty thousand, has no doubt largely contributed to this state of things.

The city is believed to contain ninety thousand inhabitants, of whom ten thousand are Christians, chiefly Maltese and Italians. As might be supposed, both praise and reproach have been lavished with unsparing hand upon this African metropolis. Diodorus Siculus calls it "Tunis the White." The Arabs have surnamed it "the

BAZAAR IN TUNIS.

proud," "the true," "the flourishing," "the industrious," "the well-guarded," and, lastly, "the abode of felicity." On the other hand, Dr. Louis Franck, court-physician to the Bey, proposes to substitute for all these epithets that of "the ill-smelling."

It cannot be denied that one's first impression in entering the city must be somewhat unfavorable; and still, if one is not discouraged, and ventures far enough, above all, if one knows how to see, he is sure to find a thousand compensations. Sometimes, passing down a narrow lane of one-story houses, — a lane so narrow that you may see people now and then leap across above your head, from one flat roof to another, — you come out suddenly before a café, nestled under the shade of superb fig-trees; or into a little square, where are tents and roofs of plank resting on elegant Moorish columns, and giving shelter to picturesque groups of women and children; or upon some fine old gateway, in the angle of which flourishes a stately palm.

At times you would think yourself in a miserable village; but a few steps further, a dome, a minaret, a Roman or a Saracen ruin, or a noisy market, a bazaar crowded with buyers, reminds you that you are in a great city. The sun whitens, gilds, illumines every scene, — this African sun, real enchanter that he is. Every ray is a magic wand, making the most common detail precious; he appears, and whitewash becomes marble; a shabby striped woollen cloak takes the softest color and the richest effect. The intense blue of the sky, which makes so fine a background for everything, aids much in creating all this picturesque beauty.

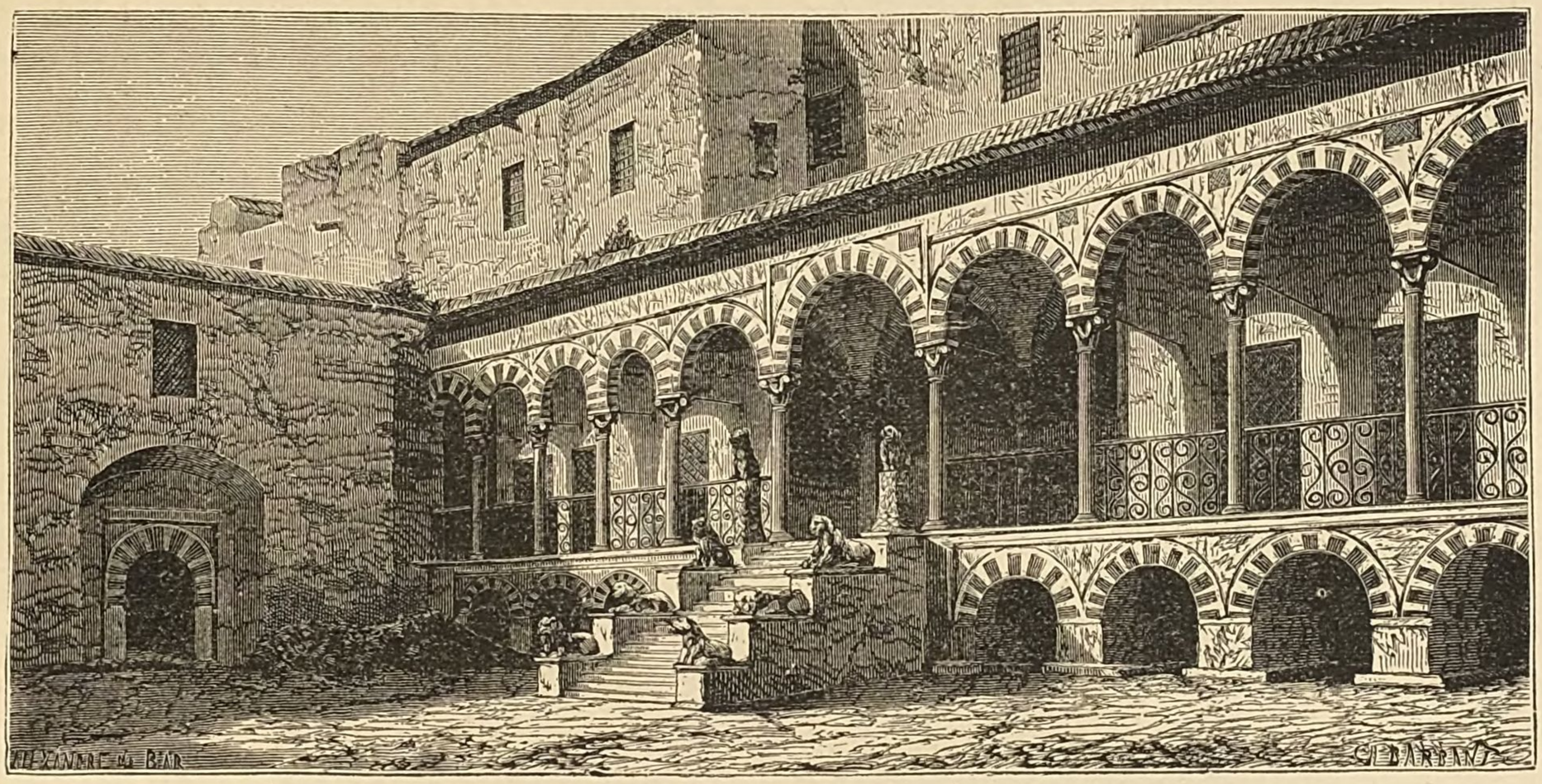
A traveller of the last century has counted in Tunis no less than three hundred and fifty mosques. It is difficult to say, without emulating his industry, whether the number has increased or diminished; but on every side the eye is attracted by these elegant structures, and constantly surprised by the variety of their forms. Some are really very remarkable, and it is to be regretted that it is absolutely forbidden all Europeans, even the consul-general, to enter them. Their green cupolas, which elsewhere might seem in bad taste, in Tunis contrast well with the general white and blue of the picture; and certain extravagances of *marqueterie*, on the sides of minarets and surrounding arched gateways, which would be extremely "loud" in Europe, here find their appropriate place and successfully challenge one's admiration.

It is an endless amusement to walk through the bazaars. How many subjects for *genre* pictures they offer! In the one where essences and perfumes are sold you are almost intoxicated with the scent of roses. These bazaars are not fine structures in any sense; they are only covered passages succeeding one another, and at certain places decorated with columns and porticos. At regular times there are sales by auction. Then the tradesmen, who are usually seated so indolently, take the trouble to mingle with the crowd, holding up their wares and screaming their prices. One may fancy the tumult and disorder this occasions. Some mean little passageways are resplendent with precious things, — saddles of velvet or morocco wrought

with gold and silver, mother-of-pearl, caskets, fabrics of marvellous richness, and superb weapons. You soon notice that each trade has its own quarter. One of the most amusing is that of the tailors, hung round with pink, and green, and yellow stuffs. The most abundant product is the fez, or *tarbouch*, which we see all the world over. The Tunisians excel in the making of this little red cap, which they export by millions to all lands where Mahomet is prophet. Their embroidered silk slippers are also famous, and a certain fringed burnous of superior quality.

At Tunis, during the summer, the heat is intense. At that time, all the inhabitants who are in wealthy, or even comfortable, circumstances, withdraw to the country, where they find some degree of coolness in their immense gardens, under clumps of jasmine and orange-trees. No description can give an idea of the profound tranquillity of these delicious spots; one may pass whole hours there without hearing a sound, a murmur, save now and then a flutter of wings overhead, or two or three liquid bird-notes.

At Bardo, just out of the city on the north-west, is the official seat of gov-

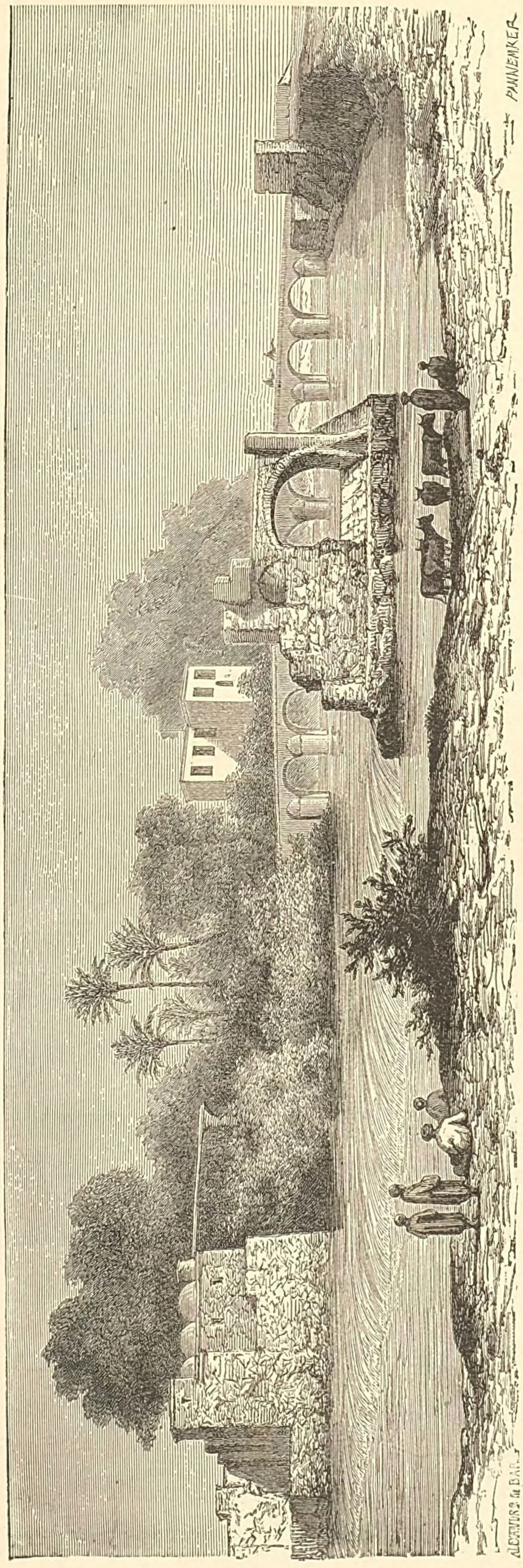


Court of Lions at Bardo.

ernment, an extensive chateau, flanked with towers and bastions. One of the most striking architectural features of this building is the Court of Lions, so called from its staircase, guarded by eight enormous lions, each in a different attitude.

In the same direction, some miles further from Tunis, we come to the most important river of the country, the Medjerdab (the *Bagradas* of antiquity). Near this river, according to legend, Regulus destroyed a monstrous serpent. Is this a fable? Who can tell? We learn from day to day our ignorance, and how it becomes us to be circumspect in pronouncing upon either the truth or falsehood of ancient story.

The banks of the Medjerdab are very picturesque. Our illustration on the left shows the remains of a Roman bridge. All along the river is a great luxuriance of vegetation. Date-trees and bananas overhang the water, and the Barbary fig, and the rose-laurel with its carmine-colored umbels, complete the decoration. Further up the river are islands covered with tamarind-trees.



Banks of the Medjerdab.

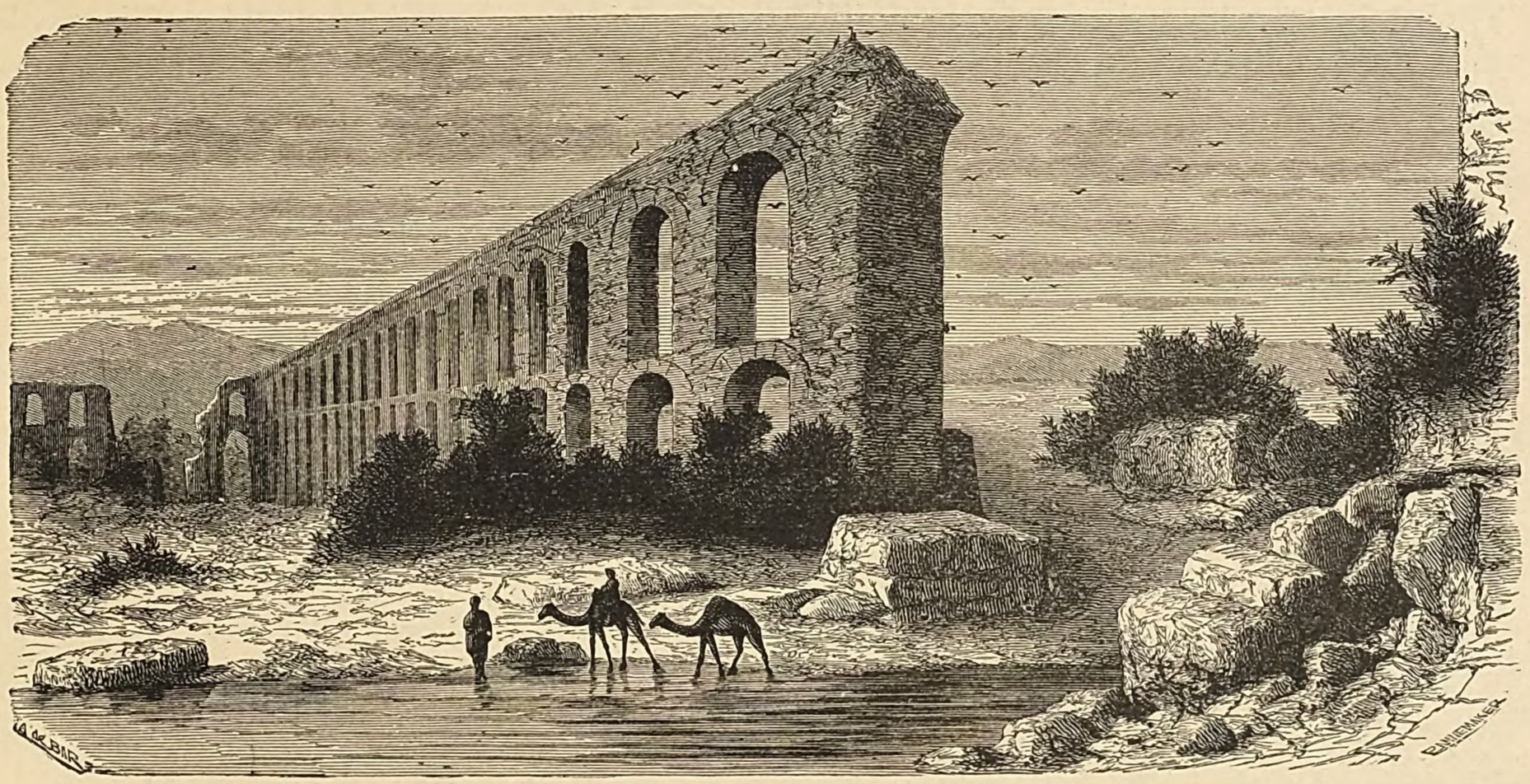
We may say without exaggeration, no soil is richer and more liberal than that of Tunis. To-day, corn and oil are its chief products ; but how far it is from being cultivated as it ought to be! The greatest obstacle lies in the ignorance and superstition of the people. The later Beys of Tunis have seemed to understand what was needed for the regeneration of their country, but they are so far in advance of the general intelligence of their subjects that many years must pass before any material advance can be made.

A great effort of modern civilization is shown, however, in the aqueduct which supplies the city with water. The springs are situated in the mountains of Zaghouan, three days' journey to the south of Tunis. The work is due to French engineers, who have followed the direction of the ancient aqueduct of Carthage, in many cases utilizing the remains of that gigantic construction.

Having gratified our curiosity with respect to Tunis, we struck off southward, with the intention of visiting the many important Roman ruins to be found near the eastern coast, and finally, making a short sea-voyage from one of the most

southern ports to Tripoli, across the Gulf of Gabes, the Syrtis Minor of the ancients.

We came first to the remains of the great aqueduct, which we present below. The date of this magnificent work, one of the most imposing executed by the Romans in Africa, can only be fixed approximately; but it seems to have been commenced under Adrian, and finished in the reign of Septimius Severus. We know that in the time of Adrian the Roman province of Africa had suffered cruelly for five years with a frightful drought, and that the emperor, to console the province, came in person to visit Carthage. By a happy chance, rain shortly followed his arrival, and the country speedily recovered prosperity. As Spartinus, Adrian's biographer, tells us that this prince constructed many aqueducts in various portions of the empire, it is reasonable to believe that, to secure Carthage against a repetition of the



Remains of Roman Aqueduct.

suffering caused by the drought, he resolved to endow this city with an unfailing supply of water from the Zaghouan mountains. Certain medals, struck at Carthage in the time of Septimius Severus, bearing that emperor's effigy, and on the reverse Astarte, the local divinity, seated on a lion which is running beside a brook, give ground for the belief that in his reign the work was completed.

A few miles further brought us to the springs themselves, in the midst of a wild and beautiful landscape. Directly over the principal spring was built a temple whose ruins, even at this day, command our veneration. It is believed throughout the country to have been a fortress, but a little examination shows it to have been built with a religious object. It is in the form of a horse-shoe, resting against the mountain side: at the back is an altar, with twelve niches on either side, now, alas! destitute of the statues which once adorned them. The central space is a great open

area, more than ninety feet long and nearly as wide; this area is about seven feet above the basin of solid masonry which was built for the spring. Steps lead down below the water and up to the level of the terrace. A subterranean canal conducts into this reservoir, through four apertures, the water of an inexhaustible spring which leaps from the mountain side, and is then conducted to the great aqueduct, supplying the distant city of Tunis, as once it did the more famous Carthage.

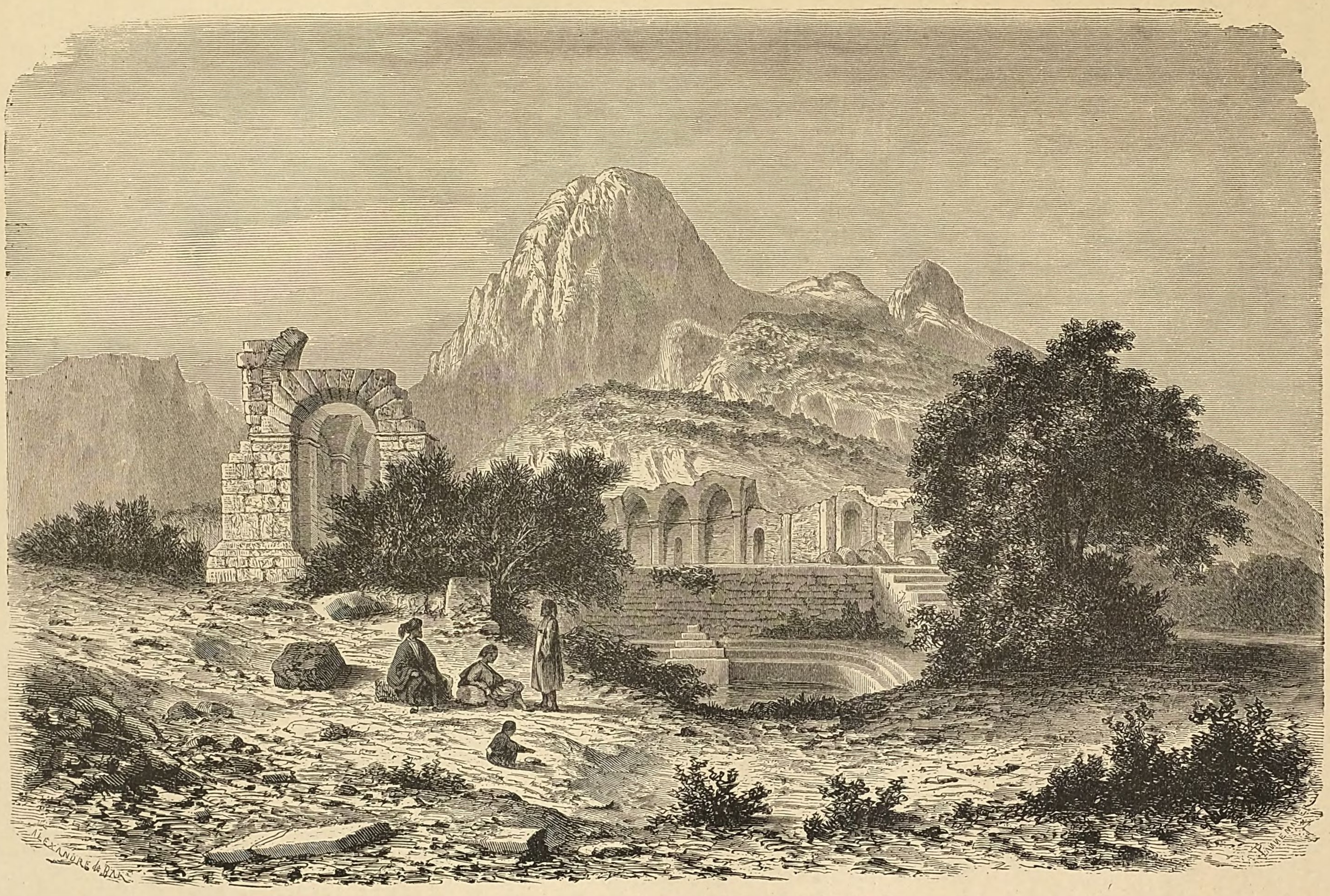
All this forms a structure complex and harmonious, shaped like an amphitheatre, the elegance and originality of which is singularly enhanced by the site it occupies. Behind the temple rises the giant mass of the Zaghouan, with its escarped sides, its deep ravines, and imposing chaos of huge blocks of stone heaped confusedly one upon another. In front of it, on the contrary, and below the level of the area, the eye rests with delight upon the gay verdure and endless bloom of the adjacent gardens. Add to this the utmost silence of solitude, the consecration time imprints upon every great ruin, and the mystery which broods over the origin and story of this temple erected to divinities forever unknown, and one has an idea of the effect it produces on the traveller seeing it for the first time.

Nearly a hundred miles south of the mountains of Zaghouan lies the Arab village of El-Djem, and here is the chief wonder of all the Roman ruins, the Amphitheatre of Thysdrus. This building is comparable only with the Roman Colosseum and the Amphitheatre of Verona, and its effect is the more striking since it rises solitary in the midst of a desert, overwhelming with its mass the mole-hills of the Arab population which are huddled about its base.

Making our way through a thick hedge of cactus, we discover by degrees the colossus in all its grand proportions, and can admire the harmony of its *ensemble* and the finish of its details. The western side is nearly in ruins, but on the east, the building stands almost intact and to its full height. There are three stories of superposed arches, and between the arches columns half free from the wall, while around the top of the building an entablature, now partially destroyed, formed a fourth story.

The style, without being absolutely pure, approaches the Corinthian, but it is the same throughout the whole edifice, and not — as in the Flavian amphitheatre and in so many other structures of this kind — differing in the different stories. Also — and this is an exceptional good fortune — all that remains here is purely Roman; one congratulates himself that there are no repairs and coarse restorations, accompanied by inscriptions in praise of the architect who committed, and the sovereign who authorized them. Not one of those shocking interpolations which so often offend the eye even in Rome, mars the symmetry of Thysdrus.

The longer axis of the edifice is five hundred feet; the shorter, four hundred and ten ; the corresponding dimensions in the Amphitheatre of Verona are five hundred



RUINS OF THE TEMPLE OF ZAGHOUAN.

and thirteen, and four hundred and ten feet. The arena is three hundred and fourteen feet long and twenty wide; the height of each story about thirty-three feet, and of the whole about a hundred and sixteen.

Of the sixty-four arches, nearly a third, on the west side, are broken down. The eastern side is entire, and of the most imposing effect. The Arabs have built their stone hovels against it, or have dug out entrances to the vaults underneath, and established themselves there. In one of these cellars, where the principal *café* of El-Djem is situated, the Arabs sit all day long, smoking tobacco or hasheesh, and drinking coffee.

Entering this great edifice, one is overwhelmed with the devastation which reigns within. The arched corridors are in part preserved, and from them one can best judge of the magnitude of the building. Although the stairs and seats are almost all in ruins, it is easy to see what was the internal arrangement. A few of the upper seats are yet intact, also one of the doors on the southern side. The level of the arena has been raised by fragments of the walls which have fallen in upon it. The orchids and saxifrages of Rome are not here, but their place is filled by fields of wild flowers and grasses, upon which feed the flocks of El-Djem. Beneath are dens destined for wild beasts, and reservoirs of water for the spectacles representing sea-fights.

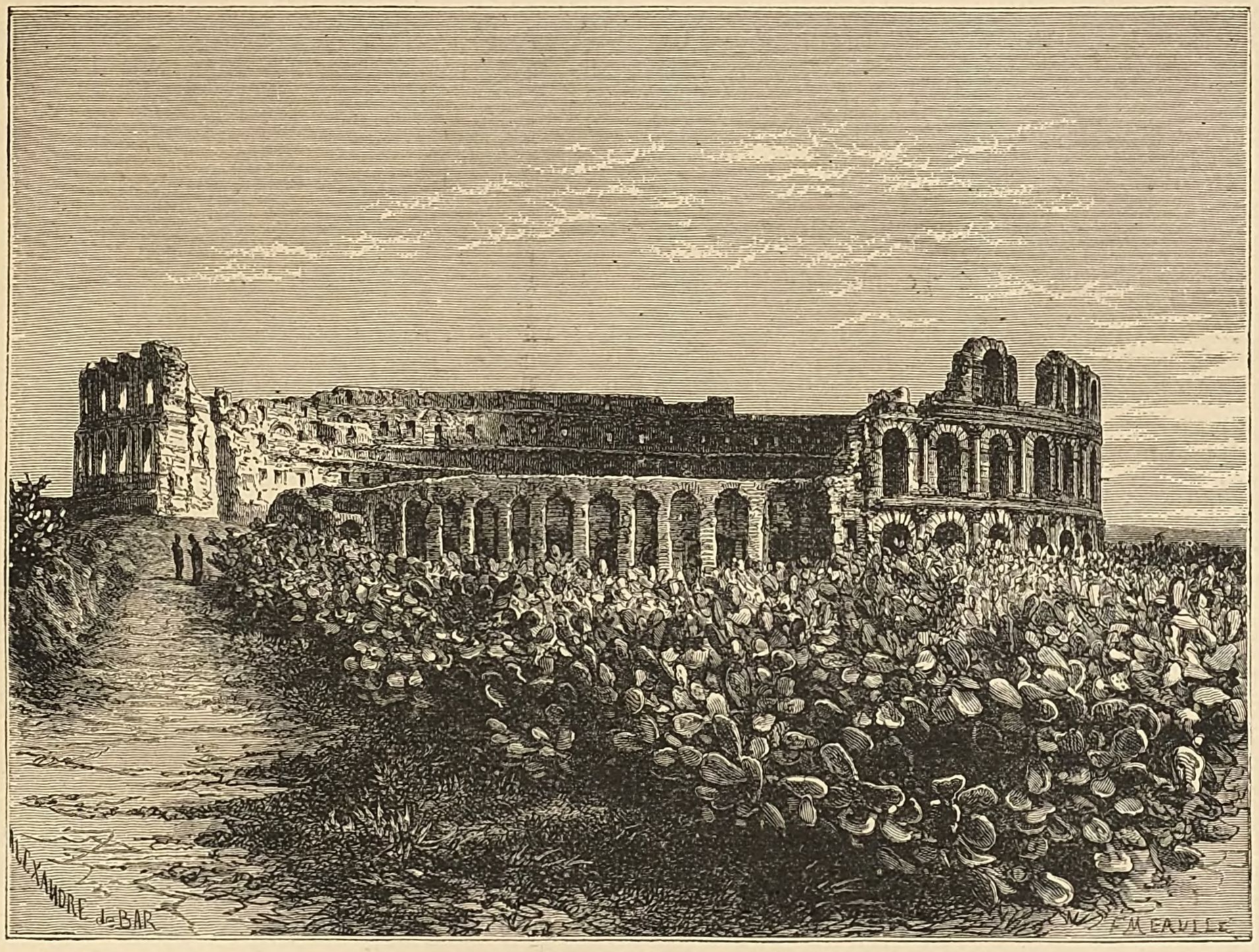
We were shown a hole, now partly filled by debris, which, according to Arab tradition, is the entrance to a subterranean passage excavated by the Berber queen Kahina, and leading out to the sea-shore near Sfakès. For, like the Roman Colosseum and the Theatre of Marcellus, the Amphitheatre of El-Djem has served many times as a fortress. Its most brilliant epoch as a citadel seems to have been the time of the second Arab invasion, about the year 689. At that time the Berber tribes, stimulated by the voice of a native Joan of Arc, the Kahina of whom we have just spoken, offered a gallant resistance to the invaders. Defeated by Hassan-ben-No'man, Kahina shut herself up here, as in a stronghold. How long she was able to defend it does not seem to be clearly known; but she appears to have prolonged her resistance three or four years, and finally to have been carried off safely by one of her own people. The name of this heroine is very much honored in Arab tradition, and for a long time the Amphitheatre of El-Djem was known as Kahina's Citadel.

About the year 1700, some tribes in revolt made a stand here, and the Bey was obliged to batter down the walls with cannon before he could reduce the rebels. Besides this, he caused three arches to be demolished, so that the edifice could never again serve as a stronghold. From this time its destruction has gone on rapidly, and at different intervals the colossus has served as a manufactory of saltpetre, and as a quarry of hewn stones.

What is the origin of this edifice, and why was it constructed here? A French

traveller, in 1743, does not hesitate to attribute it to the Emperor Gordian I., who was proclaimed Cæsar by his troops at Thysdrus. But this date must seem uncertain when we consider that this emperor wore the purple but six weeks, and during that time was occupied incessantly in civil war. Nothing in the architecture leads to any definite conclusion ; in all probability the edifice was reared in the early part of the third century, but no greater exactitude of date can now be attained.

The ruins of the Roman city of Thysdrus, situated in the neighborhood, are dwarfed completely by the amphitheatre. At the same time, it evidently was a town of importance, and we find its name, with slight modifications, in all the ancient geog-



Ruins of the Amphitheatre of El-Djem.

raphies. Ecclesiastical history has preserved the names of several of its bishops; in 417, a council was held here. As for the identity of El-Djem with the Roman Thysdrus, an inscription found near by, and deposited at present in the little chapel of St. Louis at Carthage, makes this clear beyond all doubt. The Arab village, built against the amphitheatre, and comprising a population of two thousand souls, is in no way remarkable. The people are friendly towards strangers, and take pride in exhibiting their magnificent ruin.

Leaving El-Djem, we made our way southward to Sfakès, encamping for a night

on the road, and had the good fortune to witness a Tunisian *razzia*, an extremely characteristic example of the manners of this wild people. It was nearly dusk, and we had just crossed the dry bed of a brook, when we suddenly noticed clouds of dust appearing on the horizon. Our guide ordered the caravan to stop, and himself dashed forward at the top of his speed to reconnoitre. In a few moments we had an explanation. The torrent whose bed we had just crossed comes down a mountain pass, and is a favorite road by which the Hammemas, a warlike and powerful tribe living among the hills, descend to plunder the peaceful residents of the lowland. Our inoffensive band had been taken for an enemy by the shepherds, and they had raised these clouds of dust as a signal of alarm. This was instantly comprehended by the Beni-Amram, resident in the nearer hills, and scarcely had we time to understand the situation before these bold warriors, the best shots in Tunis, rushed down upon us, to bring succor to their allies. Happily we were able to convince them of their mistake, and the gallant horsemen swept back again to their hills. Meanwhile we kept on our way, and soon came up with the shepherds, the cause of this tumult. They had hidden their cloaks in the sand, and were sheltered behind a band of warriors of the Aïaïcha, a tribe also friendly to them. As we approached, the troop of horsemen broke into a gallop and advanced upon us. When they were close to us, they discharged their fire-arms into the air in token of friendship, and welcomed us with loud cries and shouts. We had never before seen such beautiful Arab horses, managed by so skilful riders. Our guide was known to all; and everybody, to boys of eight and ten years old, had turned out for our reception. But their weapons were an amazing collection, — ancient flint-locks, old blunderbusses, pistols of an earlier age, a hundred times more dangerous for him who used them or his neighbor, than for those against whom they were aimed. All this artillery had been reloaded, and was about to be employed in a second *feu de joie*, when a fierce dispute broke out among the three chiefs in respect to our encampment, each wishing us to be near his own party. To appease this quarrel, we planted our tent exactly between the three groups; all were thus satisfied, and gave themselves up to an admiring examination of our revolvers.

To a person familiar with Arab manners, the alarm we had caused was very natural. It is an every-day occurrence among rival tribes to fit out expeditions against each other's shepherd allies. The band will consist of anywhere from five to a hundred and fifty horsemen, and they will often ride between one and two hundred miles in pursuit of their prey. Then creeping near the encampment, one party will dash in and drive away all the sheep and camels they can surround, and start for home, while the others serve as a rear-guard to protect them from attack. Surprise and rapidity are the elements in this primitive strategy, and it is easy to see

why the Bedouins value their horses as they do, since it is upon the strength and speed of his horse that the rider's success depends in raids like these.

As a matter of course, the person plundered immediately takes measures for the recovery of his stolen property. He unites his neighbors and allies, and sometimes the rencontre takes place sixty miles away from the original scene of the raid. If, in spite of all their diligence and courage, the lost flocks are not recovered, the affair becomes a grievance carefully inscribed in memory, and revenged whenever an opportunity offers. Thus an interminable series of razzias is kept up, with varying fortunes but unfailing zeal.

The next day we reached Sfakès, the most important town in southern Tunis. A vast belt of gardens forms the suburbs of this city. For hedges the Mexican cactus is employed, a plant now perfectly well naturalized in Barbary, and the gardens are filled with superb olives and pomegranate trees, and roses and jasmines cultivated for the distillation of perfumes. A few palms, scattered in the town and its environs, give a suggestion of some oasis of the desert astray on the shores of the Mediterranean. Sfakès is in fact an island of verdure, surrounded on all sides either by the desert or by the sea. But dates cannot ripen there, for the neighborhood of the Gulf of Gabes renders rains more frequent and the soil less fruitful.

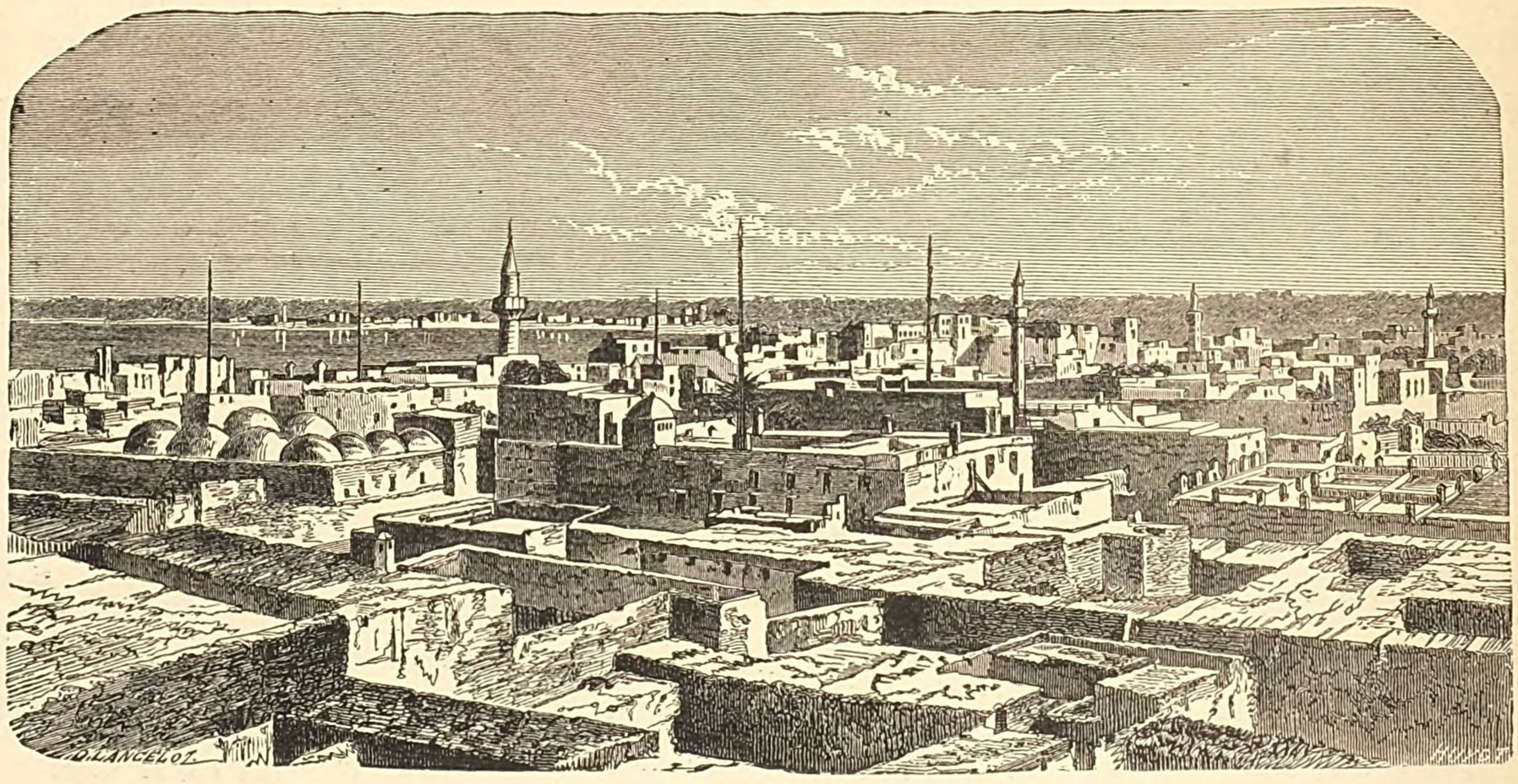
Sfakès, a town of forty thousand inhabitants, is quite a commercial centre. Its trade is carried on, chiefly by sailing-vessels, with Malta and Italy, and deals in dates, rugs, olive-oil, sponges, and its own essences of roses and jasmines. The price of these essences is considerable, even at first hand, being for the best quality not less than twenty-three or twenty-four dollars an ounce.

In the harbor of Sfakès there are always many vessels; and, making choice of what seemed the best of the traders bound for Tripoli, we embarked for that port. The wind was light but favorable, and the voyage so agreeable that it was almost with regret that we distinguished the Tripolitan coast, low and monotonous, describing a crescent whose centre is occupied by the white mass of the city. The eastern point of this crescent is completely covered with a sombre forest of palm-trees advancing into the sea, while on the west, the arid, barren shore puts on the tawny yellow of the desert, spotted here and there with some clumps of stunted shrubs.

In front of the recess which serves as a harbor for the city, the Creator's hand has flung down a string of shoals, like an invitation to human industry to construct a protecting breakwater, and secure, with but little labor, one of the best harbors in the world. When the wind blows in shore, these natural advances are revealed in a long milk-white ribbon, tracing the position of the shoals; but the temptation is offered in vain. There is but a fragment of a mole, founded upon some Roman

work, which runs out a few hundred feet to the first rocks of the series. This poor little work, however, is extremely proud of its importance, and shows in its crumbling embrasures the mouths of many cannon. We must not scorn them too much as we see them to-day, lying mute upon their massive carriages, which are sedulously painted black to conceal their decayed condition. Worm-eaten and splintered, these supports, which could not endure the shock of a single discharge, make a great show, and deceive the eye, — a faithful symbol of the Ottoman Empire, *regenerated* by the whitewash of European civilization.

It must be owned that a large part of the poetry of the East is due to our imagination. Constantinople, Smyrna, Jerusalem, Alexandria, all the great Oriental cities, sadly disenchant the visitor. The same is true of Tripoli. You step upon the quay, — that is to say, a little landing-place of masonry, which serves as a kind



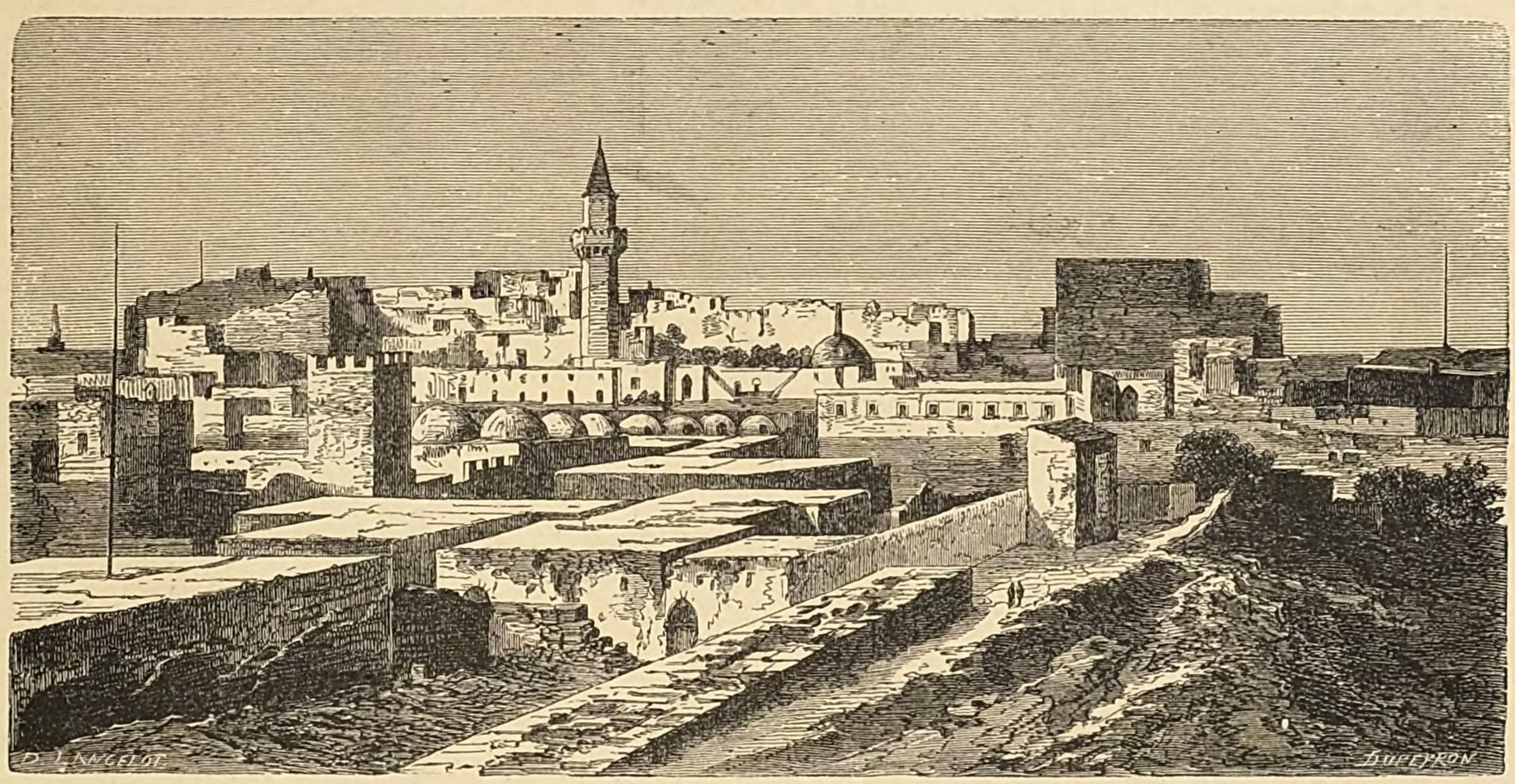
Tripoli.

of court-yard to the shed of a custom-house, painted in stripes, green, yellow, blue, and red, — and the fine effect of the city seen from the distance is quite effaced. Entering the town, you find the streets filthy and irregular, and many of the buildings mere hovels in various stages of dilapidation. One single remnant of antiquity strikes the eye, the disfigured fragments of an arch of triumph, which dates from the later Roman time.

Most of the streets have something quite original about them, which we have seen nowhere else. Every few steps, houses facing each other are united by arches, three feet or so in thickness, to give support to both, and keep them in the perpendicular position. Even this precaution does not prevent the downfall of many buildings every year, — a misfortune due perhaps to the bad quality of the mortar, or the nature of the stone, which is a very friable concrete.

The part of the city nearest the harbor is the favorite quarter of the Christian population, who are grouped around the church and the consulates. The west end belongs to the Jews; and the Mussulman population occupy the rest of the town. The whole number of inhabitants within the walls amounts to about twenty thousand souls.

The fortress occupies the south-east extremity of the city. It is a heavy, shapeless mass of buildings, whose high walls seek to pass for fortifications. But, notwithstanding their whitewash, it may be doubted whether a dozen bullets would not bring them to utter destruction. Within, it is but a labyrinth of narrow corridors and low, smoky rooms, — a very Castle of Udolpho, where one shudders to fancy himself lost. This is the magnificent residence where the governor-general is enthroned, — a Turkish pacha whose administration extends over a territory almost as large as



Citadel of Tripoli.

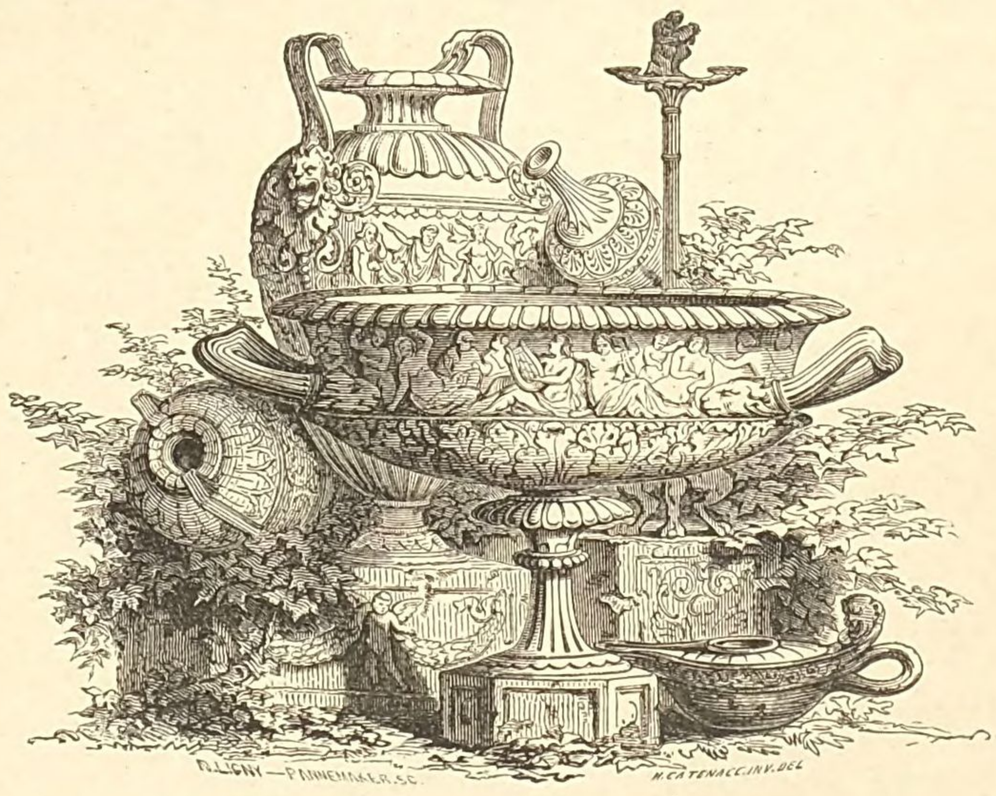
France. Much of this country is, however, a desert. From the very gates of the city extends back an arid, level plain, like the bed of an arm of the sea, left dry by the retreating tide. This surrounds the city on its inland side, a semicircular strip, about half a mile in breadth, serving as a parade-ground for the garrison, and as a market-place for the Tripolitans. The sea comes up over about a third of it, in winter, when the wind blows strongly.

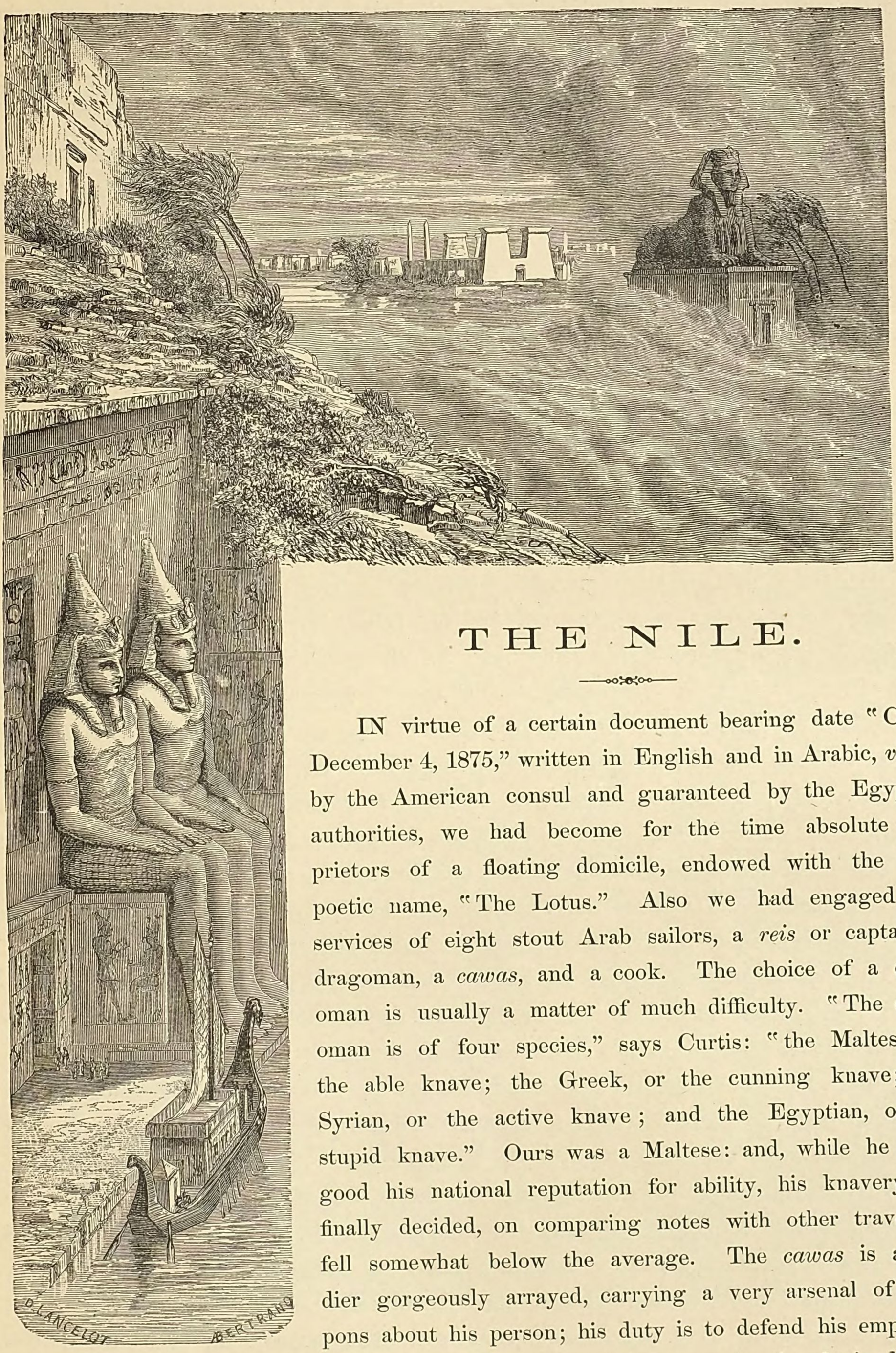
The exterior limit of this sandy zone is a long line of verdure, a thickly-grown forest of orange-trees, figs, and olives, bristling with an infinite number of tall palm-trees. With this begins another semicircular belt, called El-Menchieh, about nine miles in breadth, — properly speaking, the Tripolitan oasis, for beyond it lies the desert. This strip, through which are scattered numberless isolated dwellings, comprises a population of about thirty thousand inhabitants, and constitutes the life and strength of the province. Tripoli is but the citadel of El-Menchieh.

It makes a singular contrast, this fertile region, lying between two plains of yellow sand, — an emerald necklace around a tawny throat. Here a garden, where plants grow with marvellous energy, and the foliage of the lemon-tree doubles the shadow of the palm; and behind the walls the absolute desolation of the parched desert, dunes of fine, moving sand, swept into waves and curves by the wind. Then, one is tempted to repeat, with the old philosopher, "Water is life;" for the presence or the absence of water is the key to the mystery.

To visit El-Menchieh is the chief amusement of the city, especially in the spring-time, and the programme of the entertainment is varied according to the social position of the visitor. If a Turk, or one of the native population attached to the government, his repast is roast mutton and *pillau;* an enormous dish of national *couscousou,* surmounted by quarters of lamb and fricasseed chicken, is offered to the well-to-do tradesman; the *bazina,* a kind of barley broth flavored with oil, is for the common people. But apart from this culinary distinction, and from a gradation in the furniture they bring with them, — the carpet for the aristocracy, mats for the third estate, the bare ground for the plebeian, — the country diversions are the same for all: they sit beside an artificial lake; they talk and smoke, they smoke and talk, and absorb enormous quantities of *laqby.* This *laqby,* a very intoxicating liquor made from the palm-tree, is the beginning and end of every entertainment in the Regency.

From what we have said, it will easily be believed that we were soon satisfied with our stay in Tripoli, and it was with no regret that we saw its white walls sink beneath the horizon, as we skimmed away over "the blue Mediterranean," bound for Marseilles.





THE NILE.

IN virtue of a certain document bearing date "Cairo, December 4, 1875," written in English and in Arabic, *viséed* by the American consul and guaranteed by the Egyptian authorities, we had become for the time absolute proprietors of a floating domicile, endowed with the very poetic name, "The Lotus." Also we had engaged the services of eight stout Arab sailors, a *reis* or captain, a dragoman, a *cawas*, and a cook. The choice of a dragoman is usually a matter of much difficulty. "The dragoman is of four species," says Curtis: "the Maltese, or the able knave; the Greek, or the cunning knave; the Syrian, or the active knave; and the Egyptian, or the stupid knave." Ours was a Maltese: and, while he made good his national reputation for ability, his knavery, we finally decided, on comparing notes with other travellers, fell somewhat below the average. The *cawas* is a soldier gorgeously arrayed, carrying a very arsenal of weapons about his person; his duty is to defend his employer, and to enforce the order of government by which gratuitous service is obtained from

the natives along the river-bank, whenever the wind fails or is unfavorable, and the boat must be drawn by ropes. Our cook was an Arab, reported very skilful in pastry and desserts, and we hoped, by timely suggestions, to direct his abilities into results not altogether unsatisfactory to American palates.

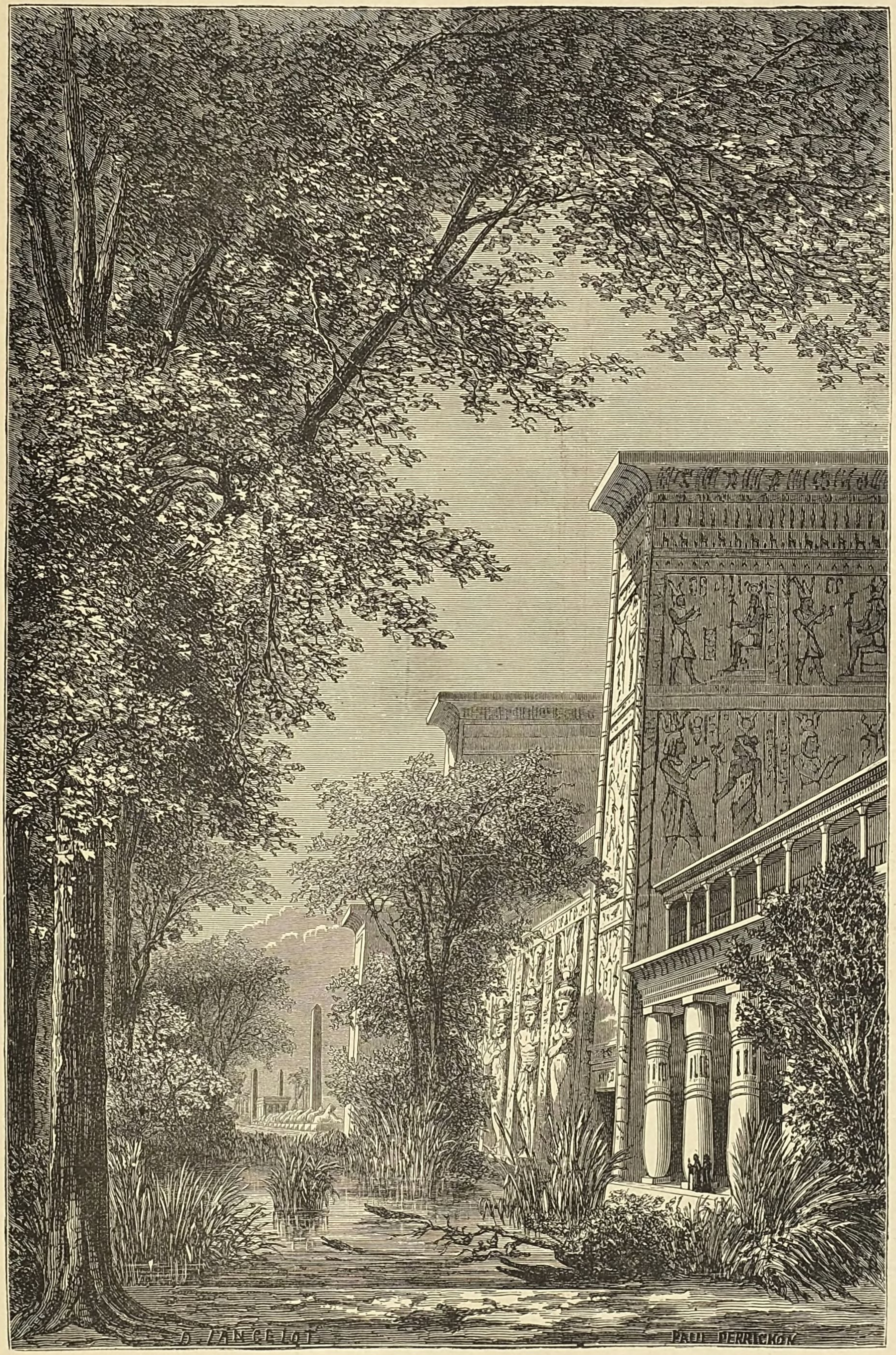
Our supplies were abundant and varied. Along the river are to be obtained only milk, rather poor butter, a few vegetables, eggs, pigeons, and fowls. Imagine all the other requisites for the table, and you form an idea of the list filled out in Cairo.

The expedition thus organized, we set sail on the 5th of December, under a sky and in a temperature like that of our May. An absolutely cloudless heaven was mirrored in the calm water of the Nile. At our left went past the suburbs of Cairo; Ramleh, crowded with boats; Boulak, with its animated harbor; the Palace of Karls-el-Nil, with courts surrounded by porticos, and quays beautified by superb sycamores; further on, the old residence of the Frenchman Soliman-Pacha, organizer of the Egyptian army in the time of Mahomet Ali; and then, the great bazaar of Massara Adim. On the right, extensive meadows and fields, and the tufted thickets of the Island of Rhoda, make a graceful foreground for the great pyramids which cast their triangular shadows upon the sand of the Libyan Desert.

Life upon the Nile begins radiantly. All the scenery near Cairo is full of animation, and verdure, and luxuriance. Our crew sang at their work a monotonous refrain, with a persistently-recurring rhythm; our dragoman busied himself in naming and describing to us everything we saw, — and a good deal that we did not see. The *cawas* also, silent, and splendid in his gay attire and his arsenal of weapons, came and sat down beside us on the upper deck, near the helmsman. It became time for the crew's dinner: each sailor has his ration of lentils; the *reis* sitting beside us made his repast of dates. Much impressed with this abstemiousness, we sent cigars and coffee to the men, which were received with noisy gratitude.

Our boat is quite spacious; in the stern on deck is a long, low house, containing six very good rooms; the saloon in the extreme end opens by many windows upon a little gallery, where we sit in the shade, smoking our chibouques, quite sheltered from sight and sound of the crew. Upon the flat roof of this house is the captain's cabin, a charming place to enjoy the evening breeze; and forward, near the mainsail, the crew live and sleep in the open air.

After sunset, night comes down very suddenly, full of silence and soft freshness. The stars are more brilliant than in our climate, and the great white moon swings up the sky like another sun. Darkness melts away into a soft half-light; the very air seems blue, and in the silvery distance the sky blends with the outlines of the hills and the great leafy tops of the palm-trees. The moon is an enchantress; it is



EGYPTIAN GARDEN AND TEMPLE.

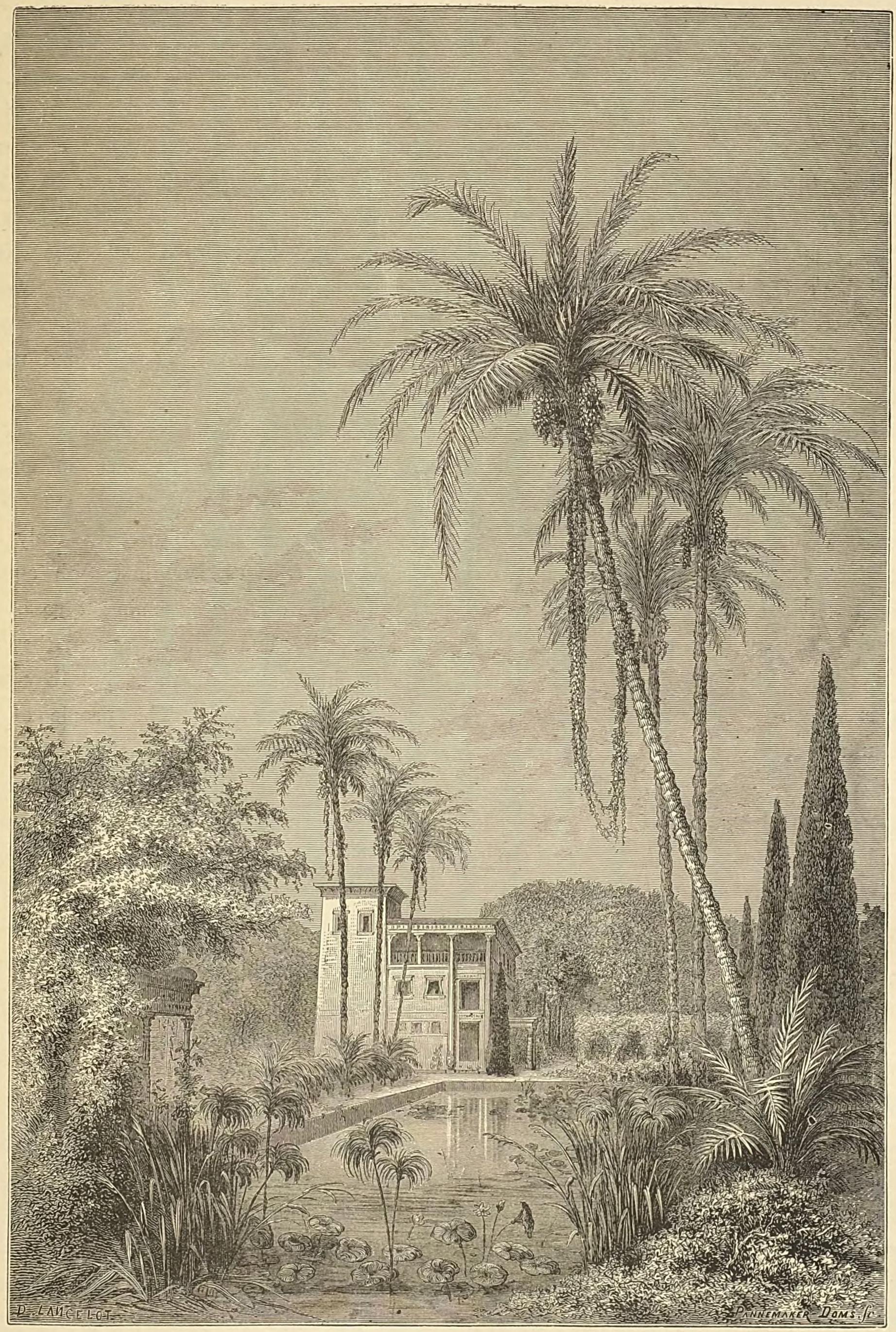
she, mysterious and beneficent divinity, whom India, Egypt, and Greece have rivalled one another in adoring.

Our first night on board was of brief duration; the singing of the crew, as they resumed their work, awakened us before day; but we soon became habituated to the sound, and even found it soothing. No road in the world is like a river; one advances, yet absolutely without consciousness of moving. Beautiful white villages appeared in the distance, grew yellowish and dingy as they came nearer, then retired again, resuming their beauty and brilliancy with increasing distance.

Head winds day after day delayed us; and while great boats, loaded with straw in bundles, slipped along down river with full sails, we were slowly "tracking" upwards, under the bare escarpments of the Djebel-Mabagah. On the Libyan side the valley stretches away as far as the eye can see, often interrupted by villages and picturesque towns; some close by the river, others a mile or two away. Near Minieh is a stationary steam-engine for irrigation; further on are sugar refineries.

Manfalout, a town which retains its ancient name, is incessantly devoured by the Nile at its feet. It shows to the traveller a ruinous mosque and a bazaar, of which half has fallen into the water. Arab indolence opposes a scornful inertia to the aggressive river: it is written that the Nile shall carry away this wall, this house, this field. Why resist?

The city of Sioot, the third in importance in Egypt, presents more attractions than any of its neighbors. Its numerous minarets, its groups of white houses, stand out in high relief from a background of the Libyan mountain range. A delightful road in the shadow of mimosas, a park avenue, so to speak, leads from the river to a kind of gateway opening into a great court-yard surrounded by barracks. Here are the Arnauts and the governor's troops. Then we cross a little arm of the Nile which is frequently dry, but in December the water is high and forms a pretty cascade. Across the little bridge at the right is the *moudir's* palace, and no doubt his harem, for as we passed we could hear merry voices and laughter, as in recess in a girls' boarding-school. Great trees overhang the walls, and shelter from sight the buildings within the enclosure. A narrow steep street leads to the centre of the town. Local industries fill the great bazaars with a thousand characteristic products. Sioot is the capital of Upper Egypt or Saïd; its environs, a narrow strip between the mountain range and the river, are distinguished by their luxuriance of vegetation. The 20th of December seems to be winter by the almanac; but here in Sioot the fields were green and flower-filled, and fragrant as in spring. A few leaves were falling from the mimosas, but the new corn was springing luxuriantly, and the orange-trees were all in bud. The narcissus looked up with its bright eye from between the rocks on the river-banks, and clumps of violets made the air fragrant. The sugar-cane — which grows here to the height of eighteen or twenty feet — recently cut



EGYPTIAN VILLA.

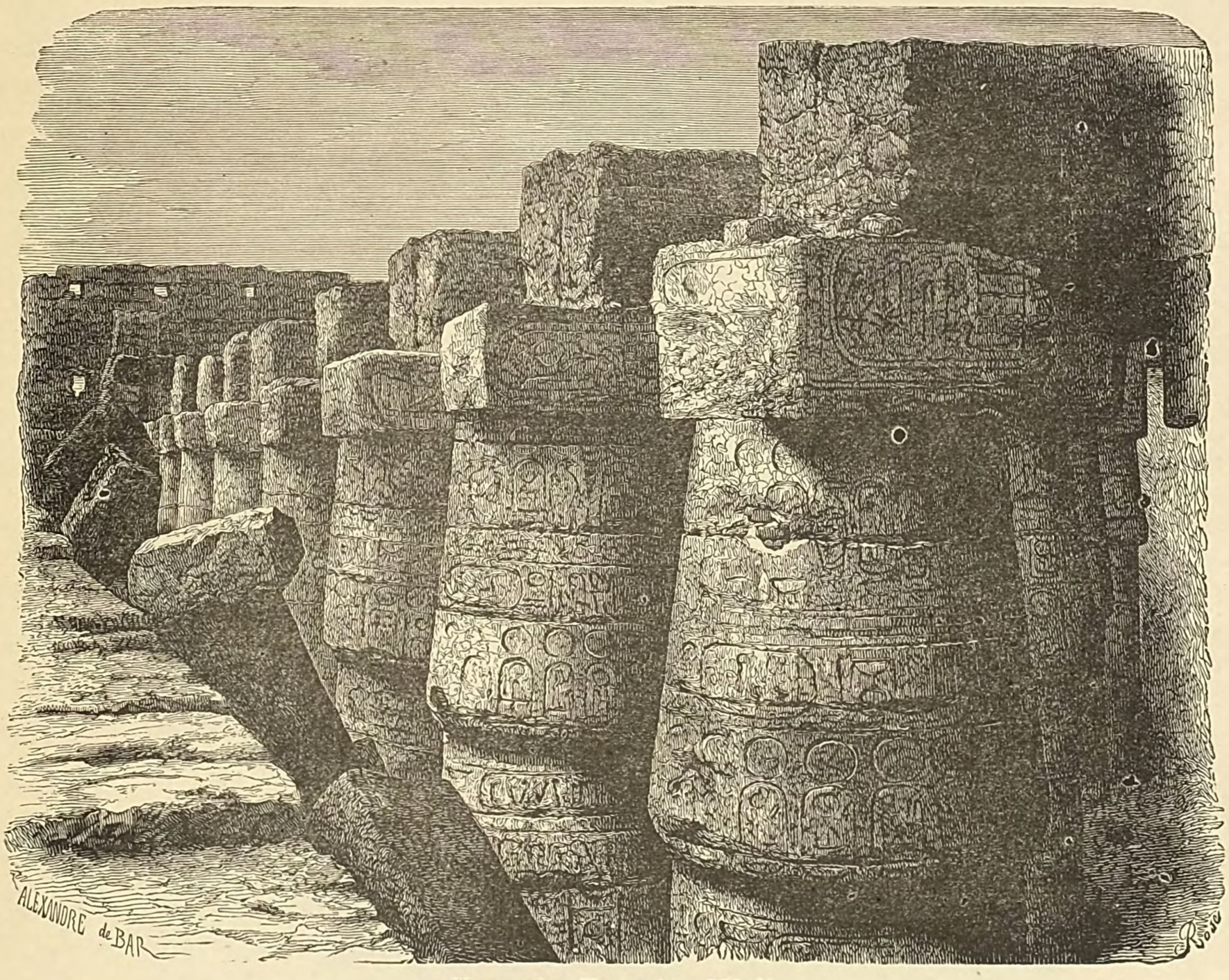
down, was already sending out vigorous shoots. Tobacco, hemp, and flax, growing in patches, add variety to the graceful effect. Among the trees we recognize for the first time one, a special lover of the sun, the Dôm palm. Instead of a single tall trunk, with a plumy top of long, pointed leaves, the Dôm palm is always forked, the two main branches subdividing into many lesser ones, each of which bears a cluster of rather short leaves, and bends under the weight of a bunch of reddish nuts. These nuts are as large as an orange, of irregular elongated shape, and have the appearance but not the taste of little cocoa-nuts. The thick, thready husk contains a soft and rather sugary fruit and a hard kernel. The Dôm palm has two harvests in the year; the natives eat the fruit when it is fresh, and use it largely, when dry, as a medicine.

Above Sioot, the Nile itself is an object of interest, at least as much so as are its banks. Its abrupt turns, the struggles it makes to escape from the mountains which hem it in, vary the aspect of its current at each moment. Now and then, herds of buffaloes come down to drink of its limpid waters, and plunge suddenly into the river, disappearing from sight, except their black muzzles wreathed with aquatic plants. Frequently one sees whole squadrons of superb ducks, swimming across, and occasionally landing on some sandy island. Half wild, and without owner, they are very abundant near Farchout; we tried in vain to shoot some of them, but they were aware of human presence, and took refuge among the rocks. The people of the country kill them in great numbers towards spring, at the time when melons innumerable, dropped by overloaded barks, float down the river, pecked at by the ducks all along. Then each man coifs himself with a hollow melon, pierced with holes for the mouth and eyes, and swimming in among the unconscious ducks, seizes two at once, one in each hand. The poor birds never learn suspicion, and every day at the same hour, for a month, this sport goes on. The ducks are not the only inhabitants of the lagoons: hundreds of lizards bask there in the sun; from time to time a stork comes by, spears a reptile or two, and puts it in store in his large pouch.

But make ready for grander sights! Thebes is near. First, Konck, the ancient Tentyris, where Cleopatra built the temple of Denderah; then, Gamaunh, Hamamdi, and the rich fields and luxuriant groves of the Arabian side of the river. The Libyan mountain range rises in all its majesty. At its feet are Gournah, Medinet, the Colossi, the Memnonia; while across the river, Luxor and Karnak display their wondrous palace-temples, even yet filled with all the glory of Thothmes and Rhamses. Upon this soil, exhausted by the power it once nourished, man counts for little now. A village at Luxor, a few hovels at Medinet, at Gournah some inhabited tombs, — this is all the life now existing by the great river where once gods and men, and the most stupendous efforts of human genius, had their home. And still, in this vast plain, which the mountains either side the river hem in as an enormous amphitheatre, the solitude is

peopled with visions innumerable; nations dead and gone leave a presence in the air, and thoughts still hover where the busy brain whence they sprang has long since ceased its labors.

The architectural history of Egypt divides itself into three periods. Of these the first is represented by the Pyramids, dating from the time of the Memphian kings, and believed to be the oldest structures existing. These remarkable tombs are too well known to require illustration here. The second period is the one which has bequeathed to the world the indestructible magnificence of the ruins of Karnak and Luxor and Medinet, and is referable to the dynasties reigning at Thebes. The third has left

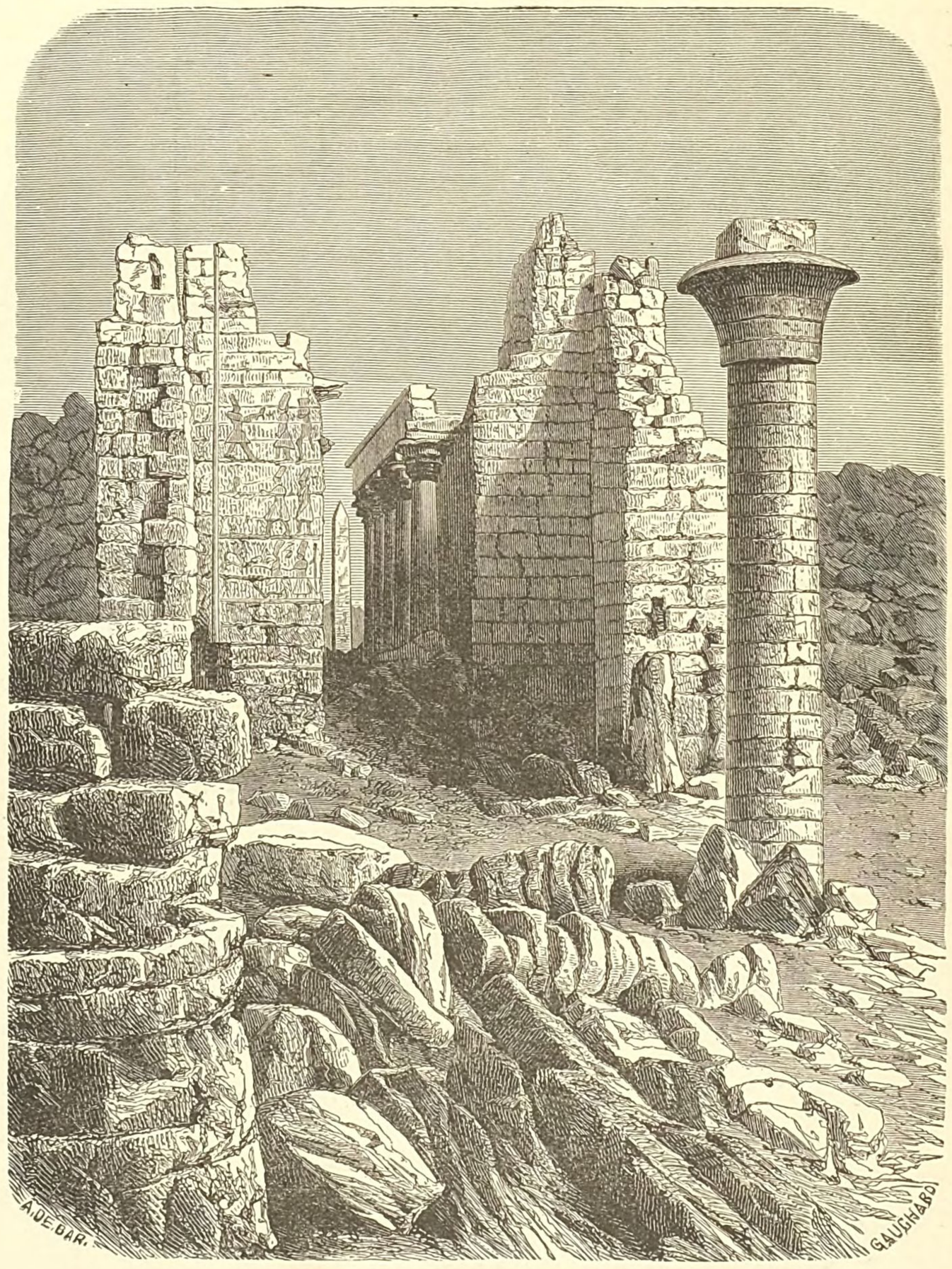


Karnak, Exterior Wall.

behind it the temples of Hermonthis and Kom-Ombos, Khartas and Philæ, and represents the Ptolemaic rulers of Egypt.

In the accounts which the Egyptians themselves have transmitted to us, their early history and chronology are divided by reference to the dynasties of their kings, of which dynasties they number twenty-nine. Their great epochs are: the Fourth Dynasty, reigning at Memphis, the pyramid builders; the Twelfth Dynasty, of which Osortasen was the great monarch; and the Eighteenth and Nineteenth, following the expulsion of those invaders known as the Shepherd Kings. The early part of the Eighteenth Dynasty was rendered illustrious by the exploits of several kings known under the

name of Thothmes. After their time followed a second invasion, by a people called "Sun-worshippers," and believed to be kindred to the hated Shepherd Kings; and upon their expulsion, the original line was restored. Rhamses III., the first king of the Nineteenth Dynasty, is clearly identified with the conqueror known to the Greeks as Sesostris. This and the previous dynasties are the great builders to whom Karnak and its neighboring temples are due; and from the conclusion of this brilliant epoch, Egypt



Karnak, Hypostyle Hall.

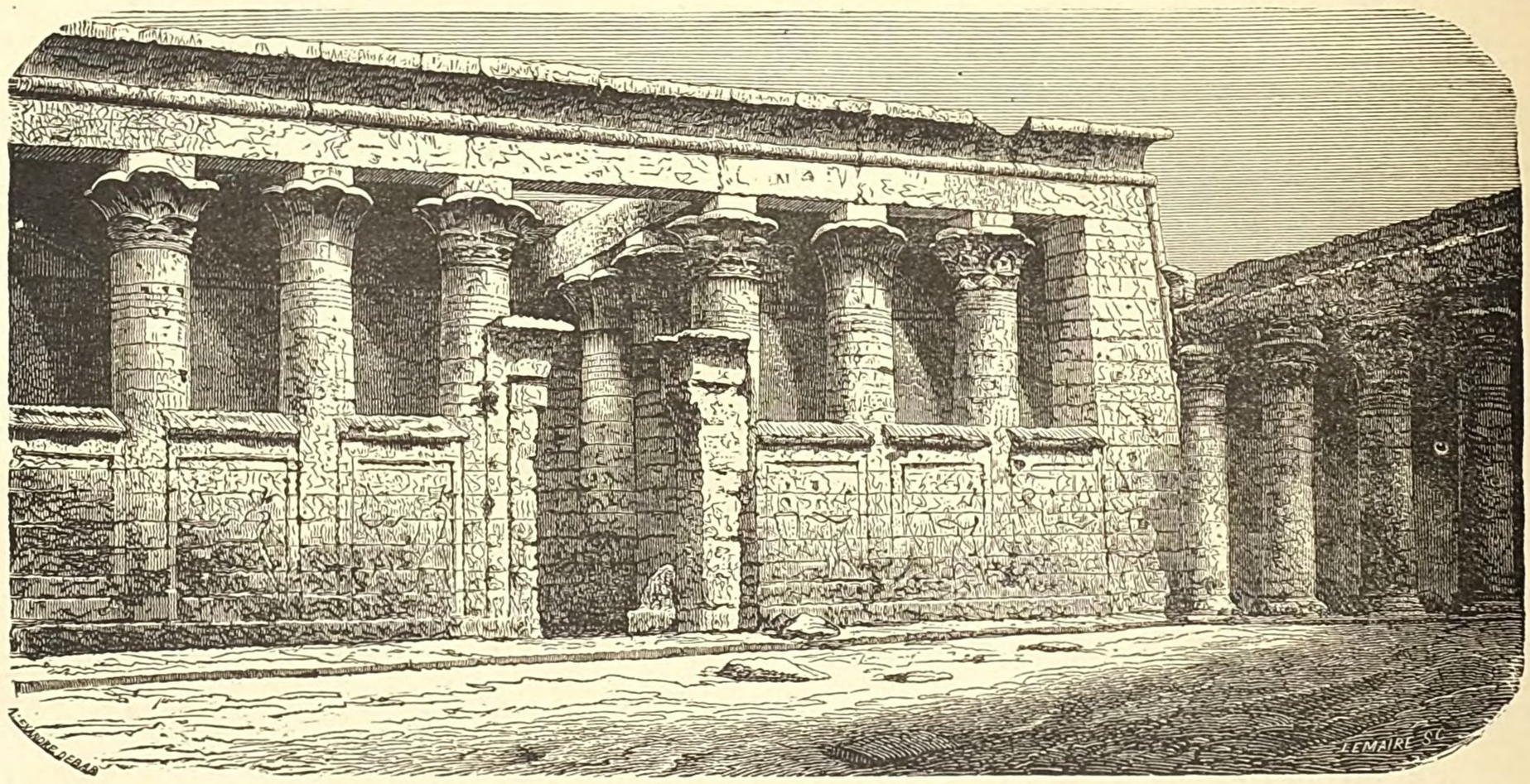
began to decline until her misfortunes were consummated by the invasion of Cambyses, in 525 B. C. A period followed of tyranny more destructive than that of the Shepherd Kings, at last relieved by the enlightened policy of the Ptolemies. Architecture and its kindred arts again revived, never with the splendor and purity of the great national epoch, but still with much richness and tasteful variety.

In the days of the great builders, Egypt was but little known either to Jews or Greeks, the nations of antiquity from whom we should naturally expect information.

In the Jewish Scriptures, Upper Egypt is scarcely mentioned, while by the Greeks the country was spoken of with ignorant wonder. In the *Iliad*, Thebes is called the richest city in the world, and "the hundred-gated;" but to Homer it was after all only a land of fable. It was a current belief in his time that the Olympian divinities were off on a holiday trip to the Thebaïd at the time when the Greeks, fighting before Troy, for twelve days found their prayers unanswered; and nothing is anywhere mentioned by Greek writers which shows a reasonable idea in respect to Egypt. From the time of the Twelfth Dynasty we find Egyptian architecture characterized by the presence of obelisks and columns, both unknown to the earlier builders. The simplest form of Egyptian pillars is the plain, square pier. Its next form is an octagon, formed by cutting off the angles of the square. This same step, carried further, gives a sixteen-sided or a thirty-two sided figure; and then the idea seems to have been suggested of hollowing out the faces of this polygon with reversed curves, making a fluting; and we thus reach what has been called, from its extreme similarity to the Greek order of that name, the proto-Doric column. One of the oldest forms is that shown in the Exterior Wall at Karnak (see page 75), tapering regularly from the base to the setting on of the capital. A large class of pillars have what is called the lotus-bud capital, evidently in imitation of the bud of that sacred plant. Another large class are distinguished by Isis heads, or heads of Typhon, as ornaments of its capitals. The origin of this is easily explained, for early examples show the Isis head painted, or carved in low relief on the faces of square piers, and gradually the relief becomes higher, while the column grows more slender, till we attain the full development of the idea as at Khartas (page 87). Also we find many instances of square piers with colossi seated in front of them, as in the illustration entitled "Court of the Colossi," page 79. But these are in no sense caryatid columns, the figures neither supporting the architrave nor strengthening the pillar. They are in fact no part of the architecture, but only statues placed architecturally.

The great Temple-Palace of Karnak is perhaps the noblest structure ever built by human hands. Its principal dimensions are twelve hundred feet in length by three hundred and sixty feet in breadth, thus covering more than twice the area of St. Peter's at Rome. Its Hypostyle Hall alone is three hundred and forty feet long and a hundred and seventy broad, an area more extensive than that of Cologne Cathedral. The original portion of this temple, or rather group of temples, was the sanctuary built by Osortasen, the great king of the Twelfth Dynasty. It seems to have been the only structure left standing during the five centuries of Shepherd rule. Or possibly it may have been pulled down by them, and restored again, its great polished stones being nearly indestructible. At all events, on the restoration of the native dynasty, the first king, Amenophis, inclosed the earlier structure with a temple one hundred and twenty feet square. Later, Thothmes I. built in front of it a hall,

surrounded by colossi backed by piers; and Thothmes III. erected behind it a palace or temple. With these additions, the temple covered a space five hundred and forty feet in length and two hundred and eighty in width, when the "Sun-worshippers" broke in upon the great Eighteenth Dynasty. When the native race were again restored, Manepthah commenced the great hall, which he nearly completed during his lifetime. This Hypostyle Hall is the culminating point of the whole group of buildings. Our illustration (page 76) gives a suggestion of it, but no words can describe its beauty, and no artist has yet been able to reproduce its form so as to give those who have not seen it an idea of its grandeur. The mass of its great central piers, illumined by a flood of light from the clerestory, and the smaller pillars of the wings gradually fading into obscurity, were so arranged and lighted as to give an idea of infinite space, while the beauty and massiveness of the forms, and the bril-



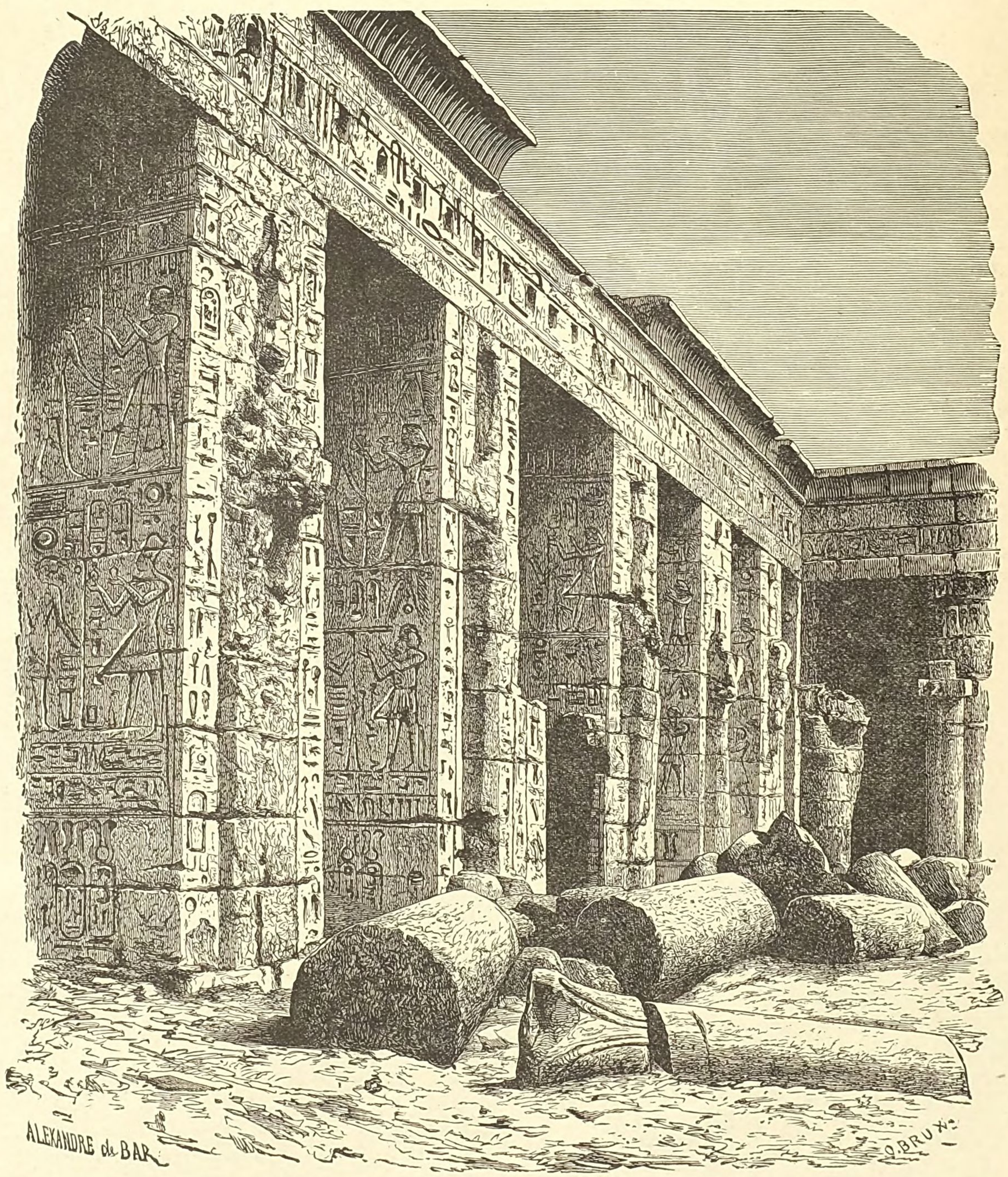
Medinet, Court of Rhamses.

liancy of the colored decorations, make a wonderful *ensemble*, filling the mind with admiration and awe. Wonderful as is the construction of this group of palaces, their demolition is even more marvellous. "Solid pylons of enormous bulk are broken in twain," says Bartlett; "vast *built* columns have been dragged from their foundations. Architraves many tons in weight, wrenched from their places, now impend over the aisles, caught and wedged in place by yet heavier masses, which have thus been giving them support for ages." Who or what wrought this destruction? — "History sinketh beneath her cloud. The traveller, as he paceth amazedly through these deserts, asketh of her, and she mumbleth something; but what it is he heareth not."

The ruins of Karnak are upon the eastern side of the Nile; across the river, on the Libyan side, the Temple-Palace of Rhamses III. crowns the rising ground of what is now called Medinet-Haboo. This is the latest of the four great temples of

COURT OF THE COLOSSI.

Thebes, and is by far the best preserved. You enter between two pavilions, which may have been originally porters' lodges, and passing through the Court of Rhamses, perhaps the private residence of the Pharaoh, emerge into a spacious area, which leads to the great court of the temple. Here all the peculiarities of Pharaonic Egyptian



Medinet, Temple-Palace of Rhamses III.

architecture are displayed in the highest perfection, and bring most clearly to the mind the spirit and genius of that extraordinary people. It is, with the exception of Karnak, the most striking and magnificent interior in Egypt.

Its lateral colonnades, forty feet long, are composed of columns about seven and a half feet in diameter. Each of the extremities presents an elevation of eight piers,

fronted by colossal statues. To these majestic colossi the court owes its impressive grandeur. Many of them are shattered, and some almost gone, but the imagination easily supplies the loss, and pictures all the original splendor of the place.

"The grave grandeur of this court," says Curtis, "is unsurpassed in architec-

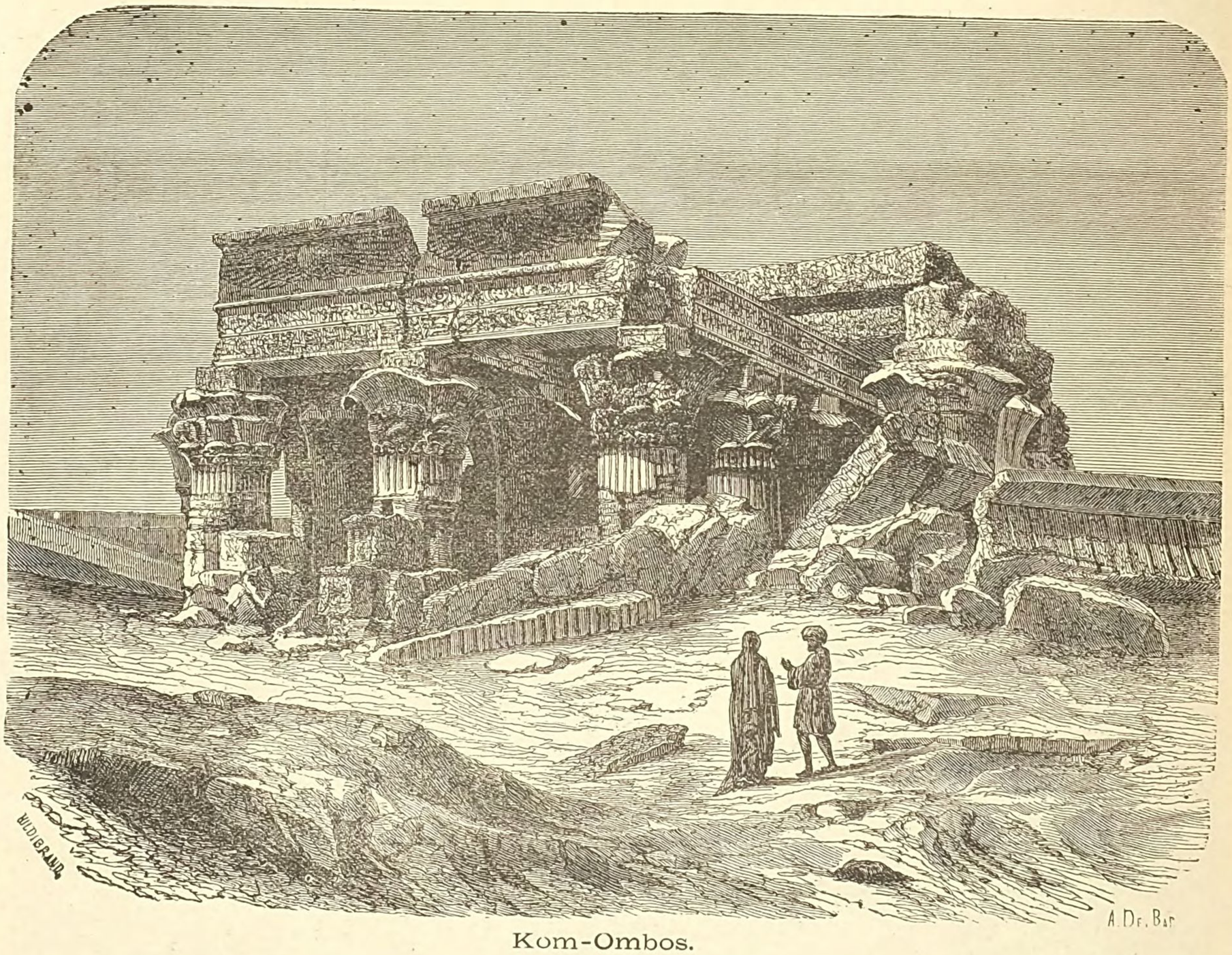
Hermonthis.

ture. Open to the sky above, a double range of massive columns supported the massive pediment. The columns upon the court were Osiride, — huge square masses, covered all over with hieroglyphics, and with figures with folded hands carved in bold relief upon their faces. The rear row was of circular columns with papyrus or lotus capitals. The walls dimly seen behind this double colonnade are all carved

with history, and the figures upon them, with those of the architraves, variously colored."

This colored decoration is indescribably effective here. Bas-reliefs in such limitless profusion would be objectionable; but these colored intaglios, extending as they do over the whole building, give an even tone of ornamentation, without impairing the outline or disturbing the general effect. They are cut three or four inches deep into the solid stone, and their edges are as sharp as the day the workmen left them.

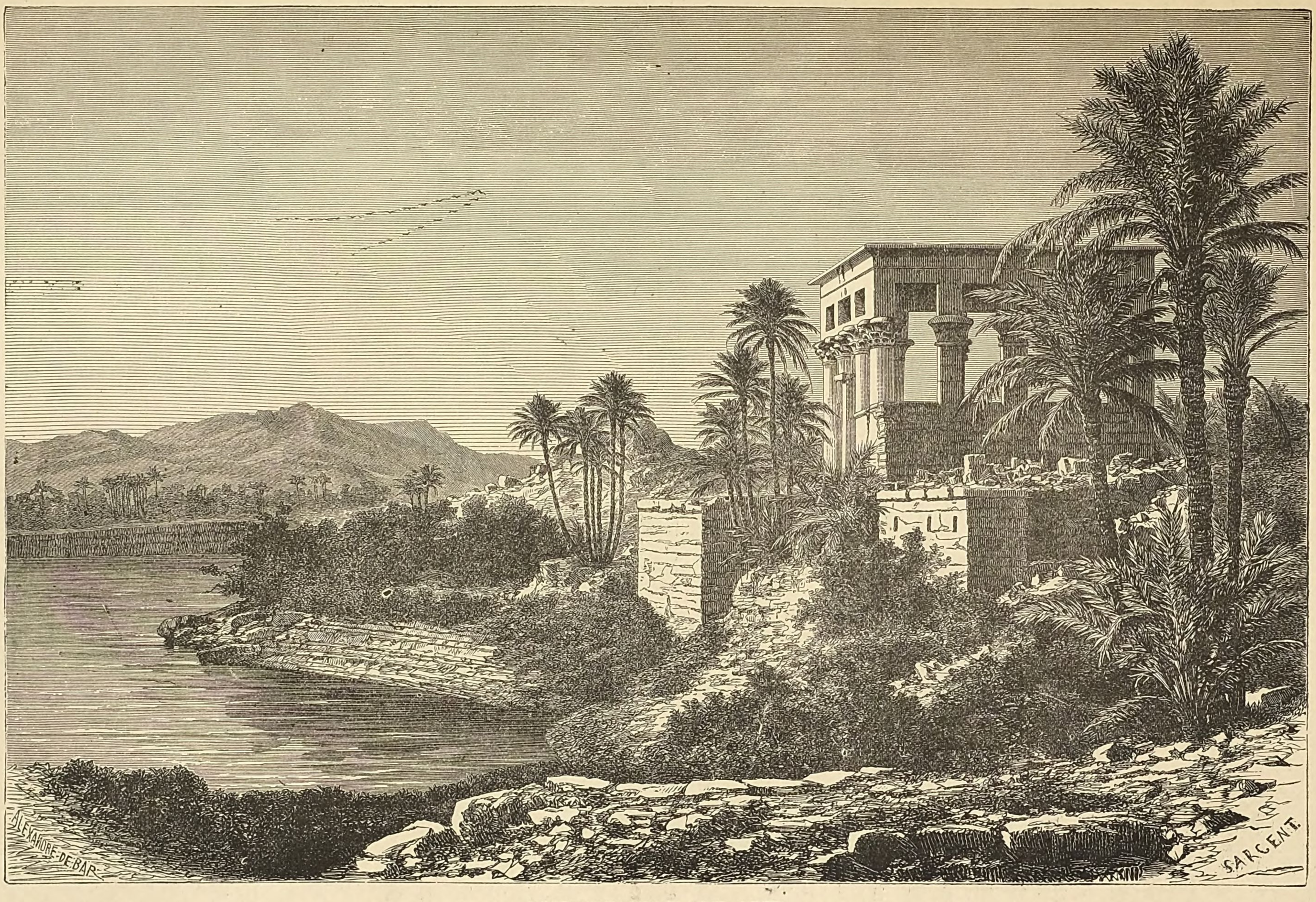
Reluctantly we bid adieu to Thebes, and resume our journey southward. For a



Kom-Ombos.

few hours modern life resumes its influence, as we admire the fine husbandry of Mustapha Pacha's estates. There is something more attractive further on, however: at some distance from the river, four beautiful columns rising in front of a little sanctuary bring us to the first Ptolemaic ruin. This building, the Temple of Hermonthis, was erected by Cleopatra, whose name is associated here with that of her son Cæsarion. The scene is extremely picturesque. It is Egyptian and yet Greek. The capitals are of the same style as those at Medinet, while the elongated shafts tell plainly the influence of foreign art.

Half-way between Hermonthis and Philæ, we passed Kom-Ombos in the moon-



THE TEMPLE OF ISIS.

light. It is a temple undermined by the river, and half buried in the sand. A peculiarity of structure in this temple is explained by an inscription. A column instead of an interspace occupies the centre of the portico, and two lateral entrances lead to double doorways. The inscription tells us that the temple was dedicated to two divinities.

A whole day and night yet separated us from Syene and the Cataract; winds, rocks, and river delayed our advance. Along at our right stretched the low green island of Elephantine, covered with ruins almost invisible, fabulous home of those ichthyophagi who served Cambyses as his ambassadors to the Ethiopians. At last we had reached the Cataract, which consists of three rapids separated from each other by smooth water. The ascent is difficult, and though by no means dangerous, requires much knowledge and skill. Carrying boats up and down the rapids is the great business of the Nubians who live on the borders of Egypt, and the *reis* who commands the large squad of men necessary to take a boat up is an important and dignified character.

The scene around us was wild and picturesque. Great masses of black rock, rising out of the water wet and shining, like a herd of buffaloes petrified in various attitudes, serve as points of support to which are attached cables. The half-naked troop of Nubians, shouting and gesticulating wildly, dash into the water, or scramble upon these rocks, dragging us slowly upwards. Night fell as we passed through the first rapid, and we came to anchor in the smooth water, amid much congratulation from the Nubians on our lucky advance thus far, as they bade us good night, and disappeared over the bank. At daylight they returned, and resumed their labors. The passage of the other two rapids was achieved in much the same fashion, and three o'clock in the afternoon brought us out into the broad, smooth current above the Cataract. Here lie the twin islands Philæ and Beghieh.

Philæ was the holy island of Egypt. Seen from the river, a belt of green surrounds it, and the bank is a tangled mass of flowering plants and vines, above which tower the stately palm-trees. The surface of the island is a mass of ruins, but the great Temple of Isis yet stands, and a smaller hypæthral temple overhangs the river. Two colonnades, whose increasing divergence reduces the optical error by which parallel lines seem to approach each other as they retreat, unite these two temples. The western, and more important of the two, consists of thirty-three columns, whose shafts are covered with intaglios, and whose capitals, ingeniously varied, never repeat the same design. Sixteen columns, in less complete preservation, form the eastern colonnade. About in the centre of the western gallery, a flight of steps whose base is often under water cuts the continuous rampart, and descends to the river. This propylon recalls the Roman epoch, and is not less beautiful for that: everywhere the head of Augustus, the sceptical profile of Tiberius, or the brutal face

of Claudius, surmounts the great meagre figure carved with that uniformity from which Egyptian art never knew how to vary.

The Temple of Isis, represented in the illustration on page 83, is the smaller hypæthral structure by the river-bank. The eye rests with delight upon its airy grace and unadorned simplicity. There is not an hieroglyphic on it, nor any sculpture except the winged globe over the portal leading to the colonnade. Open above, as its name *hypæthral* implies, it is beautiful indeed. No roof was ever intended for it, and the walls between the columns are built up only about a third of the height.

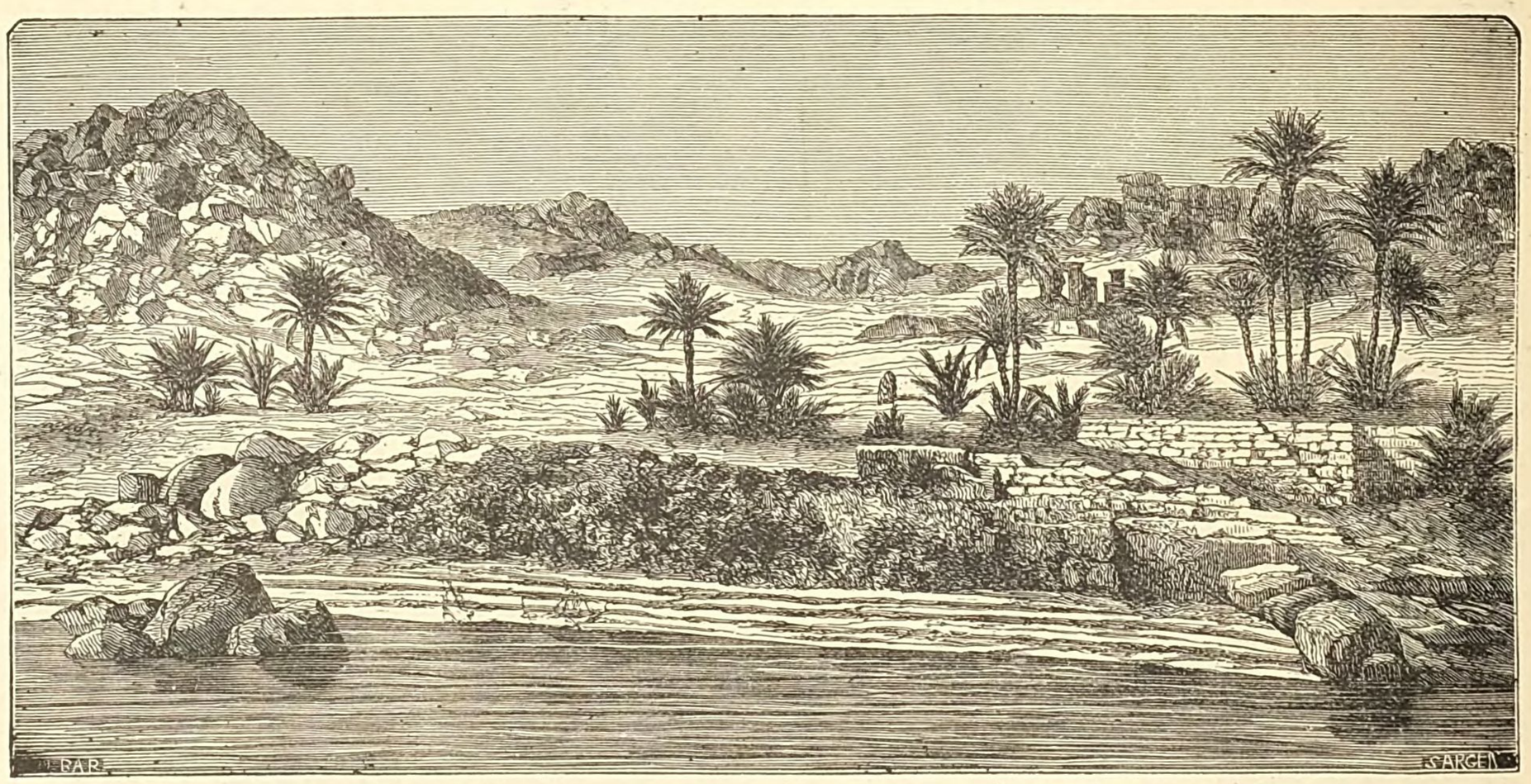
Philæ, Colonnade.

Several courses of stone intervening between the columns and the cornice add to the singular effect, but in no degree diminish the beauty of the edifice.

The temples of Philæ might easily be restored, or at least their further decay prevented; and let no one scorn these temples because of their comparatively recent date. It is true that to the epoch of Rhamses belong most of the colossi among Egyptian ruins, but the advent of the Ptolemies was the signal for a marvellous revival in arts and letters. What architecture lost in massiveness it gained in graceful proportion. Roman restorations we will not seek to defend; but the Greek influence less brusquely imposed upon the Pharaonic architecture, modified its traditions

without altering its spirit or stamping it with a foreign imprint. Nor can we forget the debt science owes to the Island of Philæ, for here it was that Belzoni, discovered that bilingual inscription in which the names of Ptolemy and Cleopatra, written in hieroglyphics similar to those of the Rosetta stone, gave the opportunity for the younger Champollion to establish the presence of phonetic characters in Egyptian writing, and thus brought about the discovery of the ancient language.

Philæ has its history, political and religious. Key of the Cataract, it became the rampart of the Theban dynasties against the incursion of the hordes of Ethiopia; it was their refuge when the Shepherd people invaded Lower and Middle Egypt. The Rhamses, when they had driven out these foreigners, covered the two islands with palaces and temples; and though Philæ has preserved nothing from this period, at Beghieh are extensive ruins belonging to the reign of an ancestor of Sesostris.

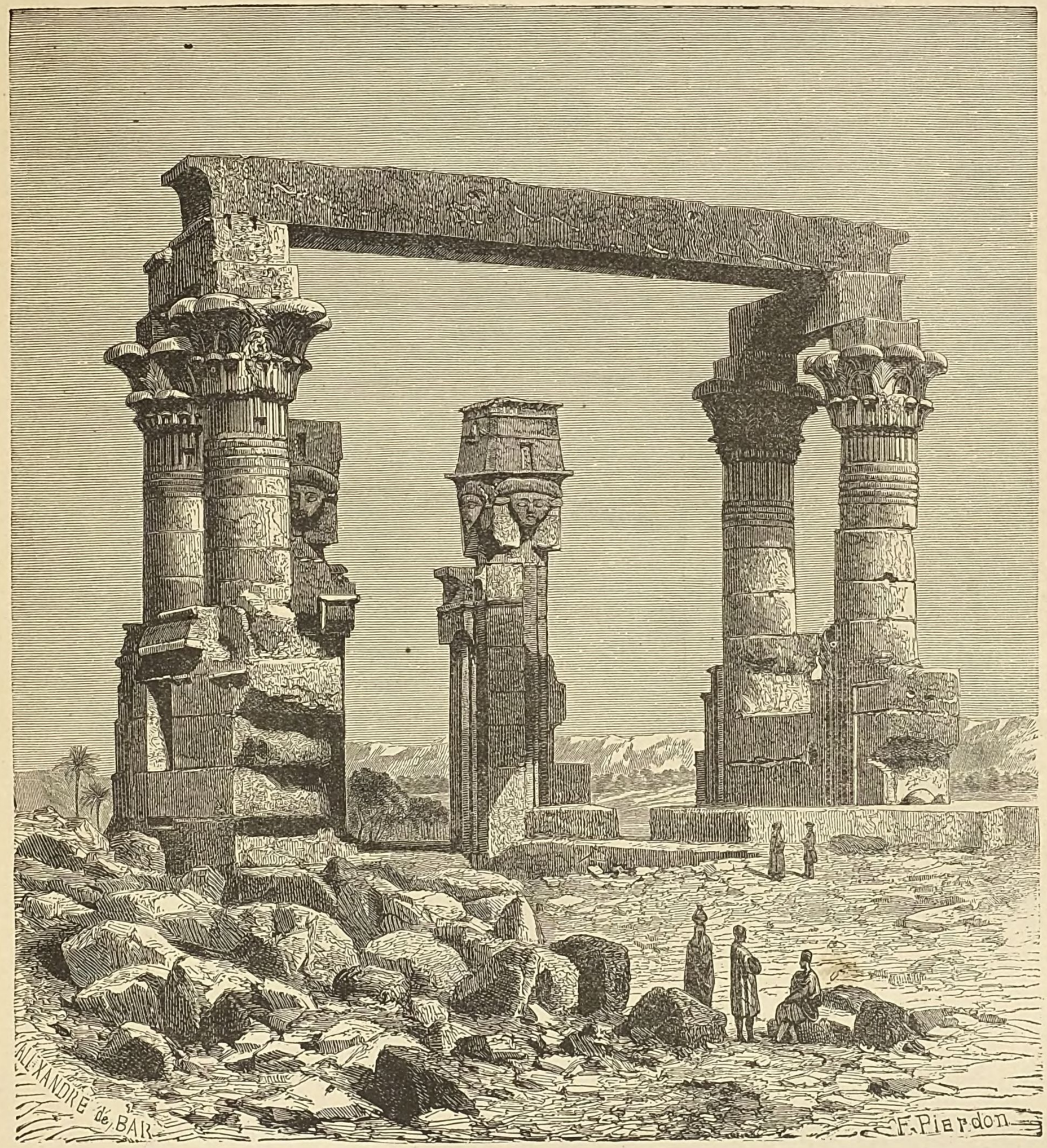


Beghieh.

This king, Amenophis, going to fight the Ethiopians, left on a rock an inscription attesting his presence. We may attribute to the devastations of Cambyses, near the end of the sixth century before Christ, the poverty of Philæ in buildings of very ancient date. The last national Egyptian dynasty began to restore the island from its ruins about 370 B. C.; the Ptolemies continued the restoration which had been broken in upon by a new Persian conquest; and we have seen that the Cæsars entered upon the inheritance of the Greek kings. When the Roman Empire began to give way upon all its frontiers, Philæ was its last citadel in Nubia; Diocletian fortified the island, and constructed an arch of triumph of which three gates still remain.

The Pharaohs, the Ptolemies, and the Cæsars in turn abandoned Philæ, but its gods remained, and sustained the long siege of the new faiths. Osiris, oldest of

Egyptian divinities, had his tomb in the sacred island; and with bated breath the Egyptian was wont to swear, as his most solemn oath, "By him who sleeps in Philæ." Here was the home of Isis and Hator, and the sacredness of the place increased as the worship of its local divinities spread over the Roman world. Chris-



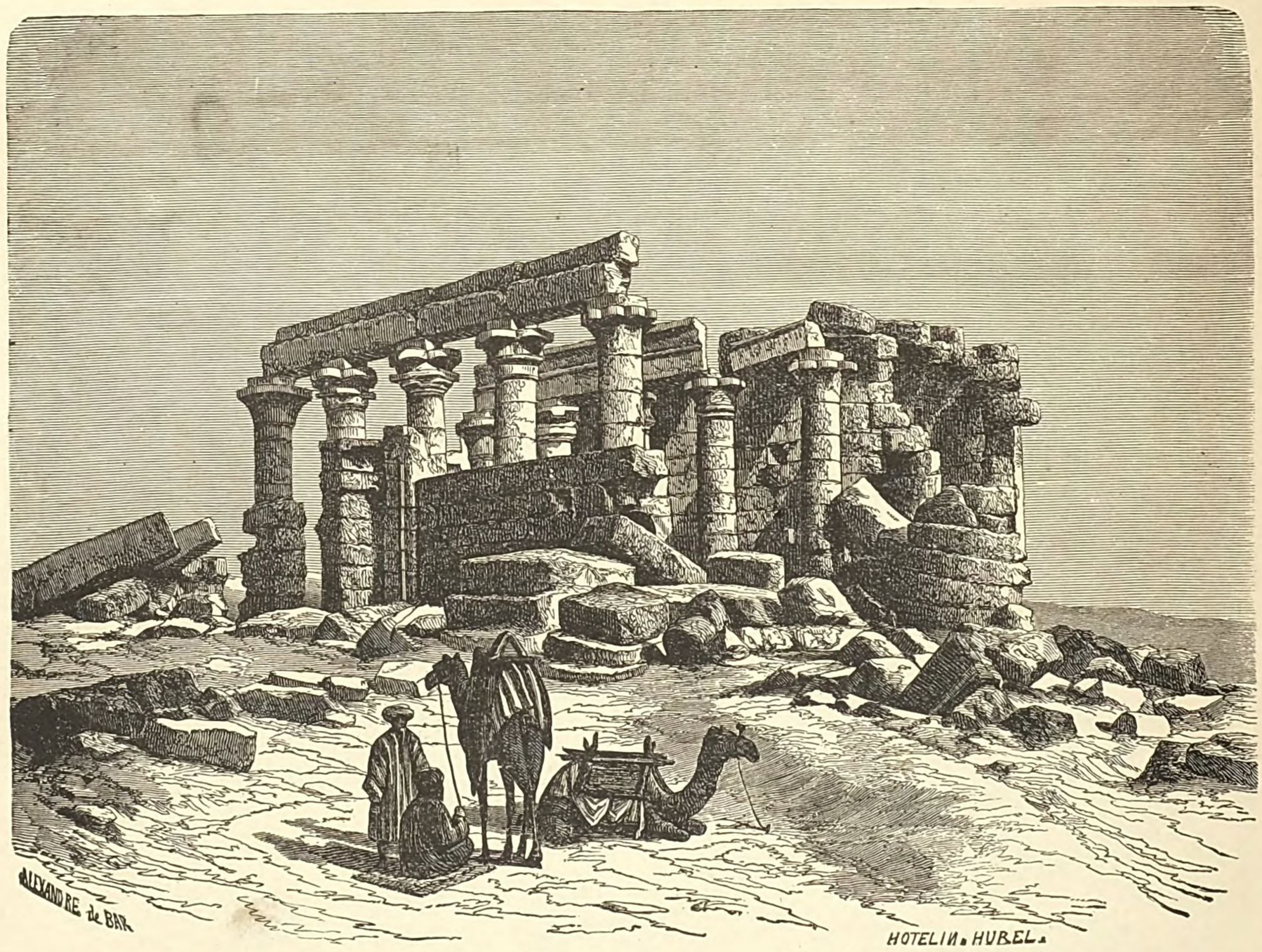
Khartas.

tianity came late to Philæ, and in the latter half of the sixth century of our era Isis still had her worshippers under the Egyptian palms; nor was it until the Arab invasion swept the land that the ancient idol ceased at last to be an object of veneration to any.

After many hours spent in exploring Philæ, we crossed to Beghieh. This island

(see page 86) is singularly composed of high granite hills, rising amid fields of *dhourra;* the huts of its few inhabitants are so built among ancient foundations and heaps of rubbish and ruined walls, that no thorough investigation of antiquities could be made without demolishing these residences of to-day. It is a romantic and interesting place from the strong contrast of the rude masses of barren rock with the luxuriant vegetation around them, and from the perfect quiet of the scene, broken only by the indistinct noise of the water-wheels, like the sound of far-off church-bells.

Since yesterday we have been in Nubia; we hear the Arabic language no longer; through the gate of the Cataract we enter into the very land of the sun. It is a



Maharakka.

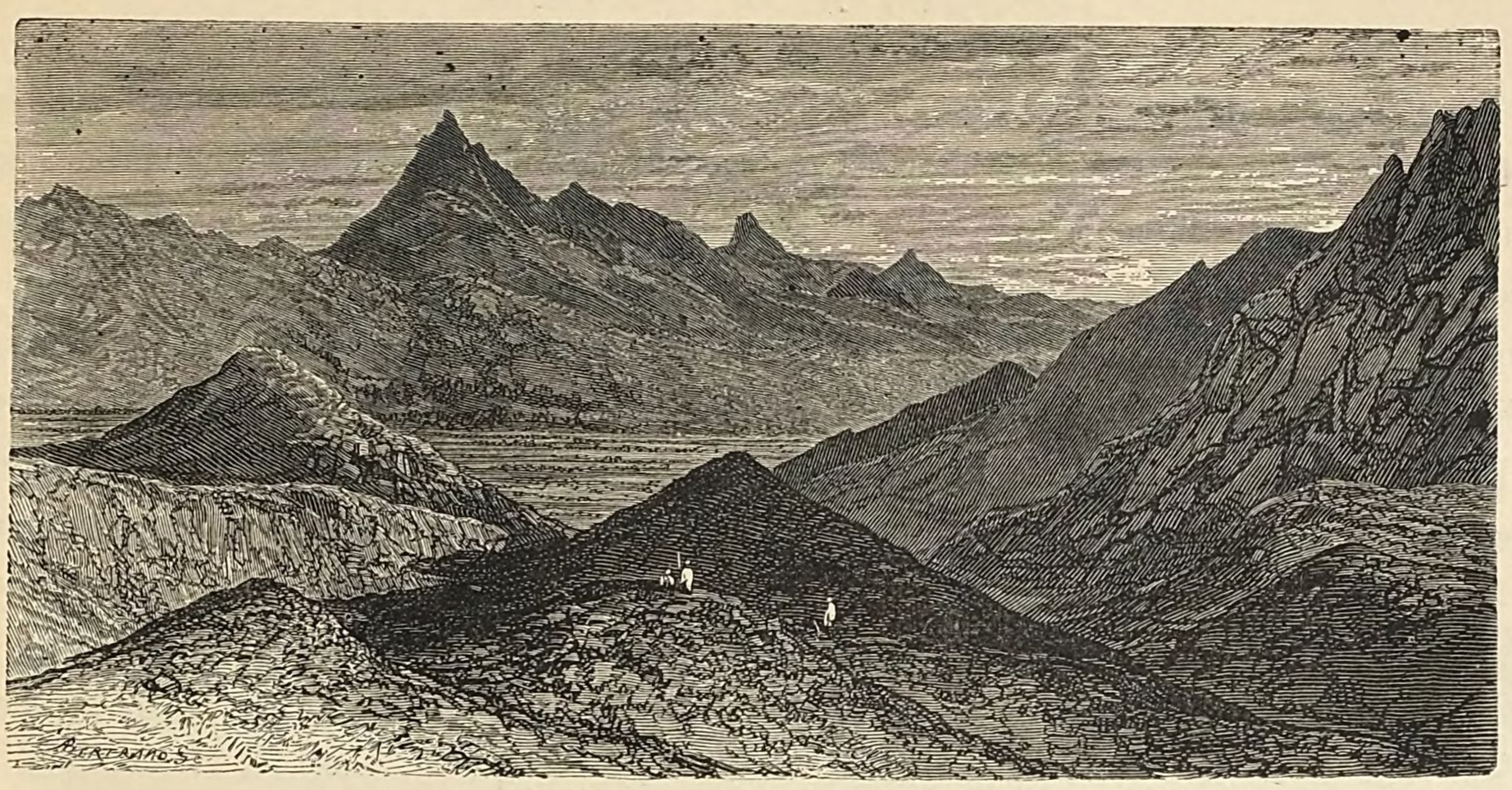
lonely, solitary land, and still the great nations of the past have been here and left memorials of their grandeur. Khartas is a ruin of the Roman time; but it was built of blocks taken from older monuments, and we recognize heads of Isis belonging to the very early periods of Pharaonic architecture.

Further south we come to the ruins of Maharakka, also of late date, and inferior in extent to many others; precious, however, for their picturesque grouping. A court surrounded by columns yet remains a little distance off; on the easterr side lie the shapeless ruins of an edifice more ancient, which, perhaps, furnished material for the later structure.

MURCHISON'S FALLS OF THE NILE.

And now the Second Cataract of the Nile bars our way. Like the first Cataract, it is but a series of rapids. Let not the reader fancy, however, that cataracts upon the Nile are all of this character. Far in the south, but a few miles from the equator, there is one fall which may measure itself against the beautiful cascades of the Western world. It was discovered in 1862 by Sir Samuel Baker, and received from him the name of Murchison's Falls, in honor of the President of the Royal Geographical Society. On either side of the river rises a wall of about three hundred feet, magnificently wooded with trees whose verdure is of the most intense brilliancy. Through a cleft in the rocks, the river, here about a hundred and fifty feet wide, springs with a single leap down a perpendicular precipice of over a hundred feet into an abyss of black volcanic rocks. The dazzling whiteness of the foam forms a striking contrast to this black basin; and tropical palms and wild bananas set off the picture.

At the Second Cataract, however, we pause. Here man's kingdom ends. Beyond is Darfour and Khartoum, visited by caravans, and by an indefatigable Sir Samuel Baker; there are kings and slaves; there are human beings, if you choose to call them so; there are, and there have been, no historic races. Devoured by sands, and obstructed by endless rapids, the Nile is no longer the splendid river which mirrors an ancient civilization. But if, turning our eyes from the southern horizon, we pierce the northern with our gaze, what sublime spectacles, what heights and what declines, what tremendous alternations are presented to us in the life of a people to whom we owe so much, — a people who were living in the plenitude of their glory when our ancestors yet vegetated upon the Asiatic table-land, and disputed with savage beasts the roots and acorns which were their food! See those crowded cities, those temples, those tombs where the dead were thought to be alive so long as their forms retained human semblance. Recall the ravages of the Shepherd Kings and of the Sun-worshippers; summon the mighty shades of Alexander, Cleopatra, Cæsar; lastly, the Arab conquest, when the flames of fanaticism swept over the land; and say, what river in all the world has such a place in history, such a deep and tragic interest, as the Nile?



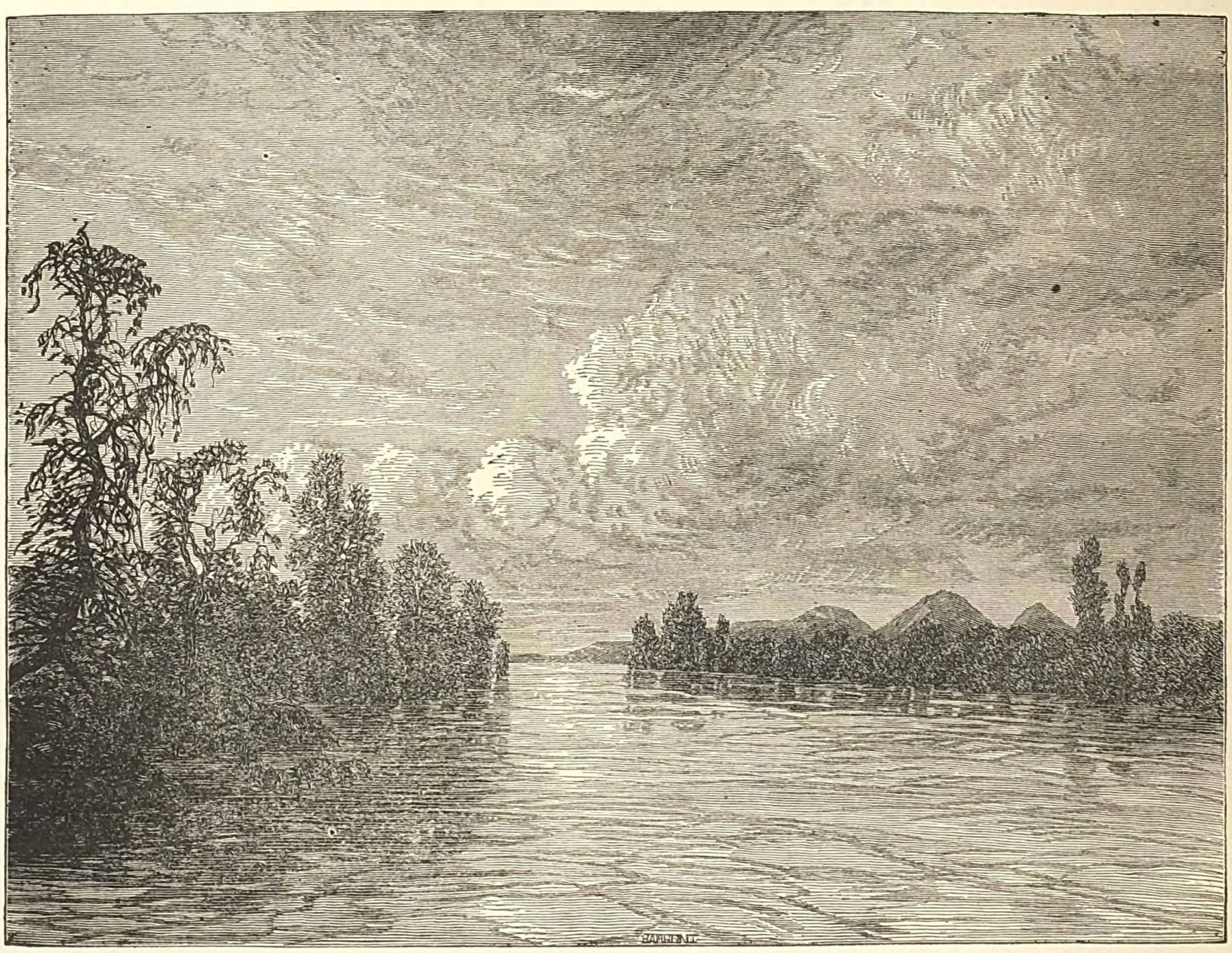
EASTERN AFRICA.

OUR illustrations from Eastern Africa appropriately commence with Nubia, whose seaport, Massaoua, a dull little town on the Red Sea, is the gateway by which explorers of Abyssinia, from the time of Bruce to the present day, have entered upon their interesting and perilous journey.

A European colony exists in this Nubian seaport, composed of one or two consular agents, a few representatives of European commercial houses, and a little band of Roman Catholic missionaries. Of these latter, the earliest comers were Capuchins; but in 1855, some Lazarist fathers, who had been expelled from Abyssinia, made a more substantial settlement, and are, at the present time, a numerous and influential body. They have built a large dwelling-house near the town, and also a church, and to this, in 1864, they added a printing-press for Abyssinian books.

The climate of this part of Nubia is extremely warm, but probably not more unhealthy than the neighborhood of the Red Sea is in general. An Anglo-Indian proverb says, "Pondicherry is a hot bath, Aden a furnace, but Massaoua is the fire itself." This, however, seems to be slightly exaggerated; the over-statement is probably due to European consular agents, who dread the Red Sea posts above everything, and are inclined to paint the country even worse than it is.

Inland Nubia is in great part a desert, cut by mountain ranges whose valleys are fertile but ill cultivated. At present it is a most inaccessible country, but an enterprise has been planned by the Viceroy of Egypt, which, if it should ever be successful, would have the effect of changing the aspect of Nubia, for the first time since the days of the Pharaohs. This is nothing less than a railway from the Nile to the Red Sea, embracing in an immense ellipse the entire country with the exception of Kordofan ; an area, that is to say, as large as the whole empire of Austria. This proposed road would start from Korosko, the extreme point of steam navigation on the



Khor of Desset.

Nile, follow the mountain passes through which caravans now make their way, return to the Nile again at Abou-Hamed, and go along its bank as far as Khartoum, thence striking eastwardly by way of Kassala, to the Red Sea at Saouakin.

Many difficulties would be found in carrying out this enterprise ; at several points the way is barred by great granitic ridges and limestone hills. At the same time there are unusual advantages in the countless valleys and dry beds of rivers, so common a feature in Nubia. To one accustomed only to European and American rivers, this latter suggestion may seem extremely unpractical, since no western engineer would regard a river's bed as, under any circumstances, available for a railway track. In Nubia, however, the presence of water in the bed of a river is of so

rare occurrence, and its depth even in the rainy season so very trifling a matter, that it is entirely within the limits of engineering skill to lay a track there and to make it secure at all seasons of the year.

The Barka, the most important river of the country, is but a ribbon of white sand, save for a few days in the summer, when the torrents from the high plateaus of Barea and Avla make their way down into its broad channel, whose sands have soon absorbed them completely. These torrents, called *khors* in the language of the country, are of great importance to its prosperity; they are not merely the feeders but the actual creators of the Nubian soil, and after they are quite dried up, there

Rock near Kassala.

is always a chance that by digging from two to eight feet there may be found water, which the saturated sands have preserved in their depths.

In the illustration on the opposite page is represented one of these *khors*, which, flowing through a light alluvial soil, and not at all hemmed in by rocky banks, spreads wide as a lake, surrounded on all sides by luxuriant vegetation.

Another peculiarity of the Nubian mountains is the abundance of curiously shaped rocks resembling those which in Brittany and many other parts of Europe are called dolmens. It has been questioned whether these rocks were natural curiosities, left in

their grotesque shapes and odd positions by great diluvial changes, or whether they were Druidic altars erected by human hands in some pre-historic period. The one represented on the preceding page is found in the neighborhood of Kassala, and others more closely resembling altars exist near the Red Sea.

Our illustrations from Nubia are, it will be observed, of natural scenery alone, the great architectural remains of this country belong to the Nile. In the narrow, fertile strip watered by that great river, and hemmed in by mountains on either side, from the Second Cataract down to the sea, lived a people, not Egyptian nor

Lake Tana.

Nubian, in the modern acceptation of those words, and theirs were the temples and palaces whose ruins fill the world with admiration. Over the mountains, eastward to the Red Sea, lived in their time, as now, a barbarous race, idle, ignorant, nomadic. They have no place in history, and all that the traveller can bring back to show us of their land are pictures of its desolate mountain scenery, its solitary lagoons, and its strange rocky altars of Nature to an Unknown God.

If we turn now to Abyssinia, adjoining Nubia on the south, we find nearly the same lack of all memorials of human skill and genius. Nature must still furnish us with our most important pictures. First and chief among these is Lake Tana, the

Dembea of the maps, a great body of fresh water, believed by all the early explorers to be the source of the Nile.

This lake lies six thousand feet above the level of the sea. It is seventy miles in length and forty in breadth, and apparently was in earlier times of much greater extent, as the flat fertile plains around it indicate. Though subject to violent storms, the Tana is perpetually navigated by the native people, who venture on its surface

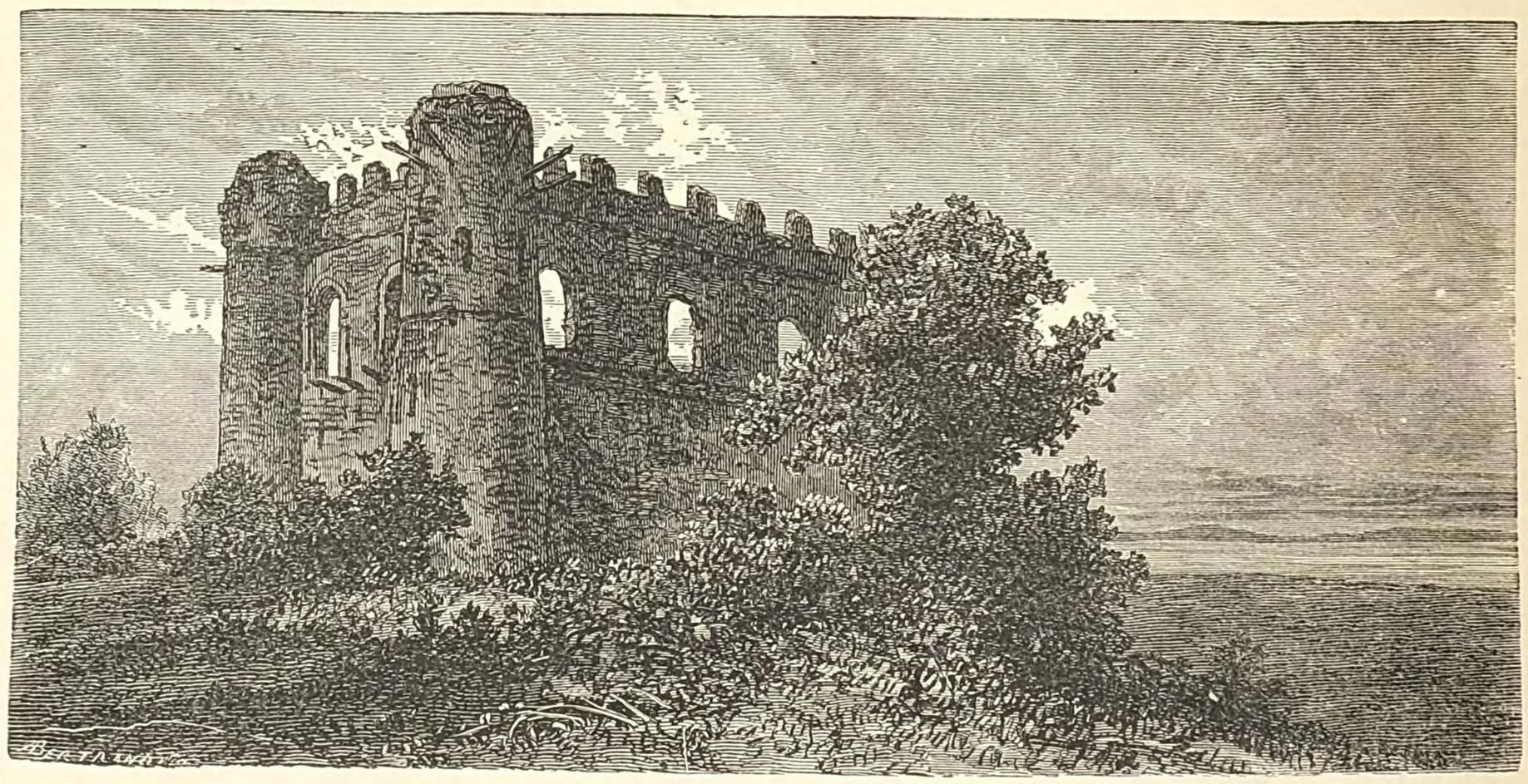
Cascade of Antona Kirkos.

in little flat-bottomed boats, made of rushes or bamboo akin to the papyrus of Egypt. Besides rough weather, another danger awaits these frail skiffs, in the shape of countless hippopotami, residents of the lake-shore, and marauders by land and water. When these unwieldy creatures come out on dry ground, however, and ravage the fields, the natives turn out in force and kill them; whereupon follow great banquetings, for the flesh of the hippopotamus is an Abyssinian dainty. Lake

Tana contains many islands, which are inhabited chiefly by monks. That this was also the case at a much earlier period is shown by the ruins of large monasteries, and the buildings were evidently of importance. Two small and barren islands, called Dek, served as a state's prison for civil and ecclesiastical offenders.

Upon the shores of the lake the vegetation is luxuriant. Cereals of all kinds thrive there; cotton grows well; the vine and the peach-tree mature fruit of great excellence.

Twenty rivers from the high Abyssinian plateau fall into this lake, and many of them come down in picturesque cascades, quite as beautiful as those more famous ones which a world of travellers admire yearly in Switzerland. We do not overstate the case in estimating the whole number of Abyssinian cascades at more than three



Ruined Castle of Guizoara, on the Arno-Garno.

thousand. In so great a number, of course, there is a boundless variety, from the mere rapid, tumbling over successive rocks, to the single sheet that falls from so considerable a height that it scatters in spray before reaching the water below. The cascade selected for illustration is that of Antona Kirkos, which makes so strong a leap from its high level that it describes the arc of a circle, leaving behind it a clear space, through which the adventurous traveller may pass, with the rock on one side, and the green translucent wave of the falling water on the other, as at Niagara through the Cave of the Winds.

Our last Abyssinian picture brings us back to the work of human hands. It is the ruined Castle of Guizoara, of which the date and the builder are not positively known, but are accounted for by legend, as is also the odd European name of the river, the *Arno-Garno*, on this wise: the castle, it is said, was built for an Abyssinian king by two French architects, the one named Arnaud, the other Garnaud. How they

came to be in the depths of Abyssinia the story does not mention, and each reader must explain this remarkable circumstance as best he can. On the completion of the edifice, the king, delighted with its foreign beauty, bade the strangers name their reward. After consideration, the Frenchmen replied: "May it please your Majesty to give us each an estate near your castle that we may build two houses and dwell therein." Now, the river on which the king's castle stood was formed by two branches, beautiful clear streamlets; and the Frenchmen, being bidden to select their land, chose, the one an estate on the east branch, the other, one on the west. They built their houses, and lived and died there, in friendly neighborhood to the king's castle. The two little rivers preserved their names, and uniting, flowed, as the Arno-Garno, peacefully down into the Great Lake Tana.

It must be agreed that this legend (if one could only believe it!) is greatly preferable to the prosaic German commentary, which seeks to derive the river's name from the Italian Arno, or the Arnon of Judæa.

Four hundred miles south of the equator lies Zanzibar, island and town, to which we next invite the reader's attention. The long narrow island is the chief in that chain of coralline outposts which line the east coast of Africa, and rises from the sea in graceful, wavy outlines of softly rounded hills, their surface clad with verdure in every conceivable shade of green, from the light leek color to the deep hue of the laurel. Enchanting is the view of Zanzibar, under the brilliant tropical sky, and no less enchanting the heavy spicy perfume which fills the air from the clove plantations outside the town. The harbor is a fine instance of the barrier reef of coral, raised upon a foundation of sandstone. Outside, in every direction, little clusters of coral islands abound, and the channels among them are intricate and dangerous. Yet the eye rests delighted upon the line of sparkling foam tumbling over the reefs, while in the distance the sea is dark-blue and tranquil, and inside, the shoal water is a clear light green.

Entering the harbor, the straight line of the town shows sharply relieved against the woods behind it. The city is quite lacking in minarets and towers, and only the great, square, white buildings of the consulates and of the Iman's palace rise above the mass of low and wretched hovels forming the inner town.

The city is built on a triangular spit, connected with the island by an isthmus three hundred yards wide. Having neither quay nor breakwater, it suffers constant erosion from the sea. This part of the island appears also to be slowly sinking, and thus the action of the water is helped on to such a degree that a point where, fifty years ago, stood a mosque and a little group of huts, is now four fathoms under water.

The population of the town is reckoned at sixty thousand by the latest estimates. By the same law which seems to obtain everywhere, the west end of Zanzibar is its

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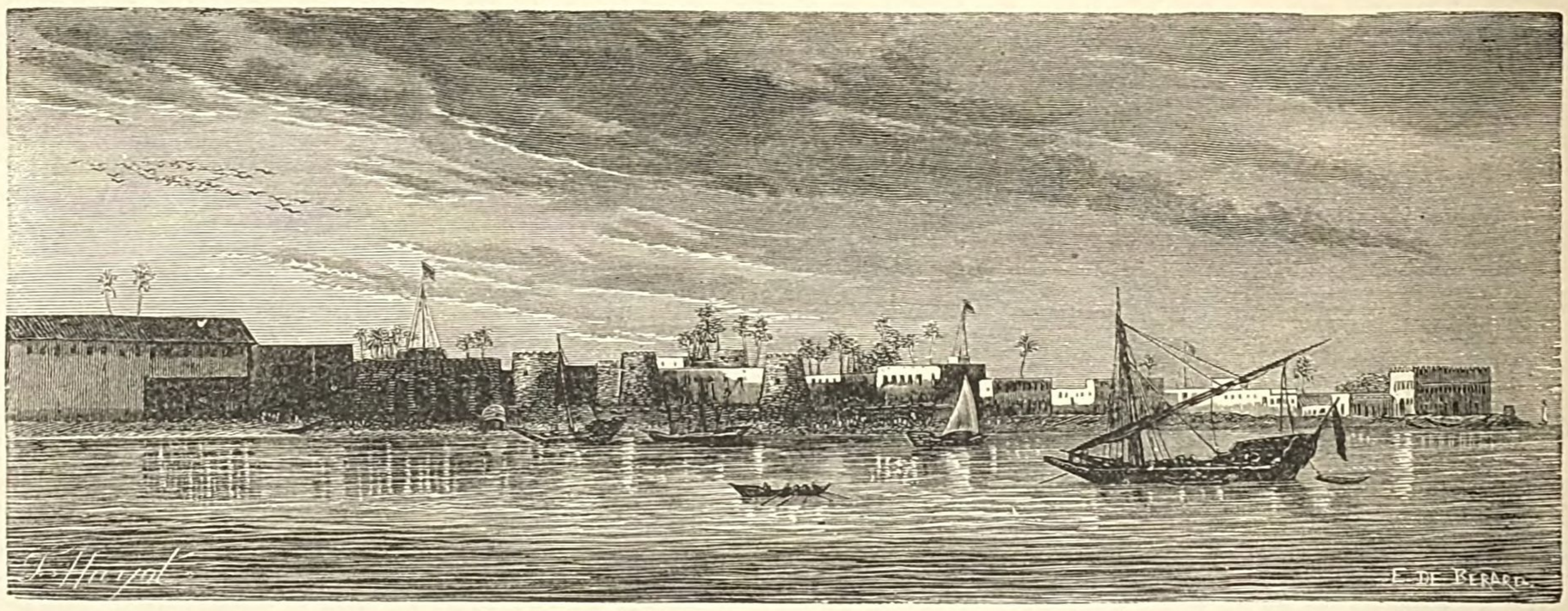
best quarter. Here European residents make their home, and regard themselves as comparatively safe from the malaria infesting the rest of the town. The centre contains the palace and the commercial establishments, while the east end is entirely given up to the poor, and is scarcely tolerable to a foreigner even for the briefest visit. The streets are deep, winding alleys, hardly twenty feet broad; but within a few years a lime pavement and a gutter have been introduced into many of those in the west end, with notable results in the way of cleanliness and comfort.

The material of which houses are built is coral rag, a substance easily worked yet durable, — stone and lime in one. The public buildings are poor and mean, and even the mosques have no beauty save their pointed Saracenic arches. Architecture may be said to be at a very low ebb in Zanzibar. The masonry shows not a single straight line, the arches are not alike in form or size, the floors may have a foot



Zanzibar.

of depression between the corners and the middle of the room, and no two apartments are on the same level. Whatever carpenter's or locksmith's work is needed is brought from India. Sentences from the Koran on slips of paper, fastened to the entrances, and now and then an inscription cut in the lintel, secure the house from witchcraft. Against robbers, however, such spiritual defence is not deemed sufficient. Bolts and bars abound, the house-doors have enormous padlocks and are studded thick with nails, and even the little ventilators high up in the walls are closely barred, while the windows themselves are made secure with heavy shutters, closed by night, no matter what may be the heat of the apartments. The long, narrow rooms have but little furniture. Pictures or engravings are unknown; chandeliers and mirrors extremely rare; a bright-colored rug or two, and half a dozen stiff Indian chairs, comprise all the furniture of a reception room in the best houses in Zanzibar.

Saturated with moisture as all this region is, its flora is marvellously luxuriant. Two articles of export, the cocoa-nut and the clove, have made the chief revenue of the island. The former grows in a broad band around the shore, and supplies

VIEW IN THE HEART OF AFRICA.

almost all the wants of savage life. It furnishes — besides food, wine, and spirits — syrup and vinegar, cords, mats, strainers, tinder, fire-wood, houses and palings, boats and sails. The cultivation of the clove-tree has been encouraged, and even for some years required by government, and, profitable as it is, might be of much greater importance in the hands of a more industrious people. The tree is grown from seed, and ripens fruit — which consists, by the way, of the unexpanded flower-buds, if the Hibernicism may be allowed — in the fifth year. The crop must be hand-picked, and should be as much as six pounds to the tree, were it gathered and dried with proper care.

Besides the clove and the cocoa-nut, there is an almost countless variety of vegetable productions of great value. Almost all European vegetables and cereals, as well as those of tropical latitudes, grow in Zanzibar. The sugar-cane would thrive were sufficient labor bestowed upon it. The caoutchouc-tree flourishes, and might also become an important article of export. There are several palm-trees, one of which, the Raphia, throws out fronds thirty to forty feet long. There are many varieties of the orange, two of the banana, and the pine-apple hedges grow wild, and mature their delicious fruit in the greatest abundance.

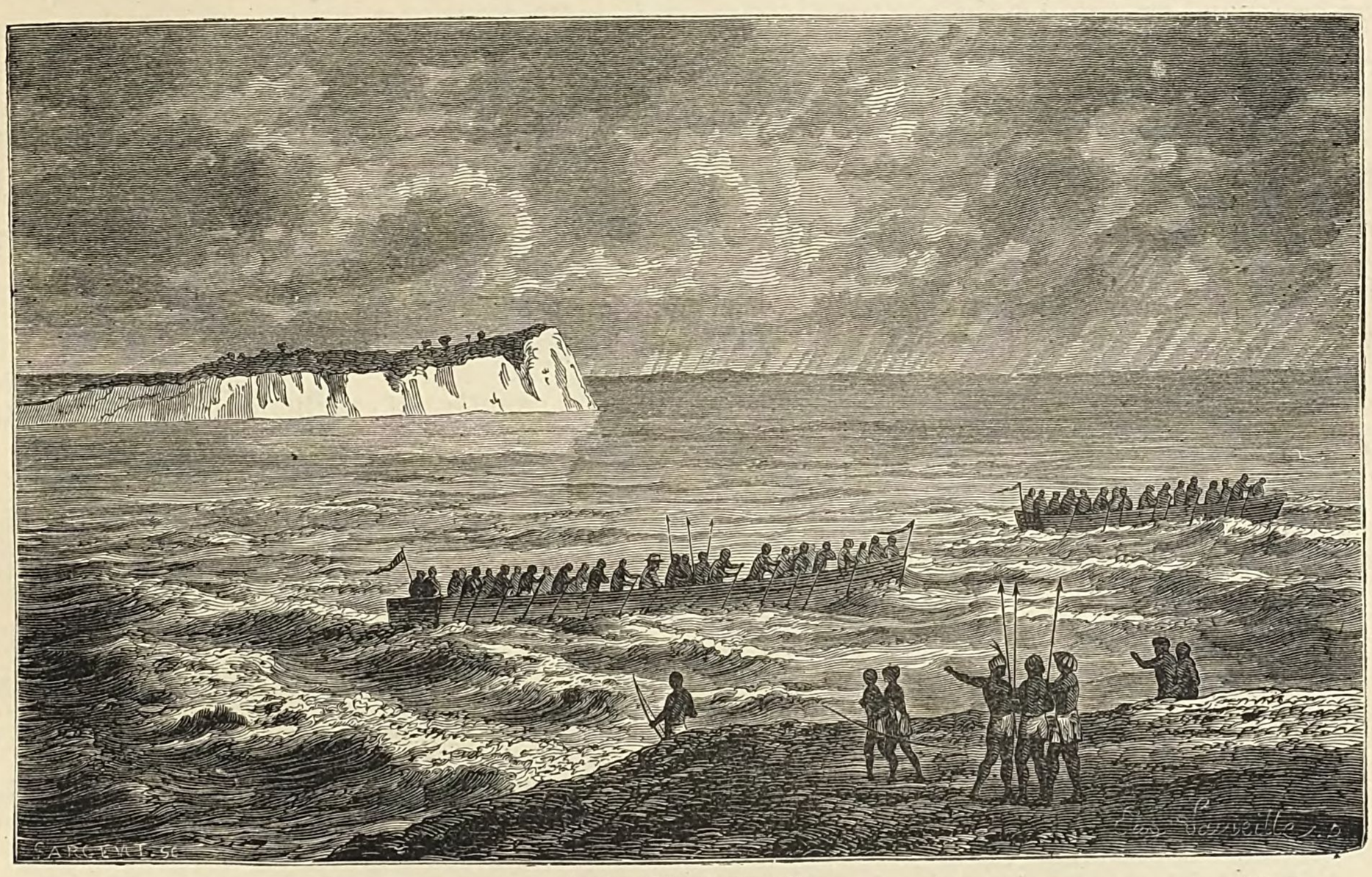
The industry of Zanzibar consists mostly in the making of bags and matting from the cocoa-nut fibre. This work is done by the women almost exclusively, and shows great neatness and even taste in the coloring of a rude pattern in madder. There is also a coarse pottery made by the natives. This, however, is of very little importance. In conclusion, their gum copal must not be overlooked, a fossil resin, washed down by the rains, and gathered by them for export, furnishing an important article of commerce.

Far inland from Zanzibar, and nearly in the same latitude, lies the great lake of Southern Africa, Tanganyika, seen for the first time by European eyes in the year 1858. Recent as is its discovery, it has had a traditionary history for more than three centuries. The fame of a great inland sea early reached the Portuguese settlements on both coasts of the continent, and the early voyagers described it — from imagination, unfortunately! — under various names. Tanganyika is its African designation, however, and very appropriately, for the word means "a meeting-place of waters."

Lake Tanganyika is situated exactly midway between the two coasts of Southern Africa. Its lay is almost due north and south, and its outline a long oval, widening in the centre, and contracting almost regularly at the extremities, its length being about two hundred and fifty miles and its greatest breadth about twenty. It has not been practicable to take soundings, but the water is believed to be very deep, and though islets are not infrequent along the margin, only one has been observed in its centre. The shores of the lake are generally low, and a thick fringe of reeds

and rushes conceals the land and defends it from the action of the waves. Here and there the coast is rough with miniature headlands, whose formation is of sandstone strata, tilted, broken, and dislocated. On the hill summits around it are groves of giant trees; manioc and cereals grow on the slopes, and the lower ground abounds in plantains and Guinea palms.

It is now believed that the Tanganyika receives and absorbs the whole river system of that portion of the Central African depression whose watershed converges to this great reservoir. It lies much lower than the other lakes, being but eighteen hundred and fifty feet above the sea. Its position and surroundings make it at times a wind-trap, and hence, subject to the most violent and sudden storms. Its water, which is deliciously sweet and pure, is sometimes of a dull sea-green, and at others



Lake Tanganyika.

of a clear soft blue, light and milky, like tropical seas. Under a strong wind the waves rise in yeasty lines, foaming up from a turbid greenish surface of menacing aspect. There is usually but little variety of temperature upon the lake. By day, in fair weather, there are light, variable breezes, subsiding late in the afternoon, followed in the evening by a steady wind blowing on shore. There is also a heavy ground-swell rolling in. During the rains, the lake is, as has been said, subject to violent and sudden storms.

Around the Tanganyika sixteen tribes have their homes, and they navigate its waters in the rudest of canoes, paddling with a stout staff six feet long. In these canoes they creep along the shore, and only when the weather is most favorable

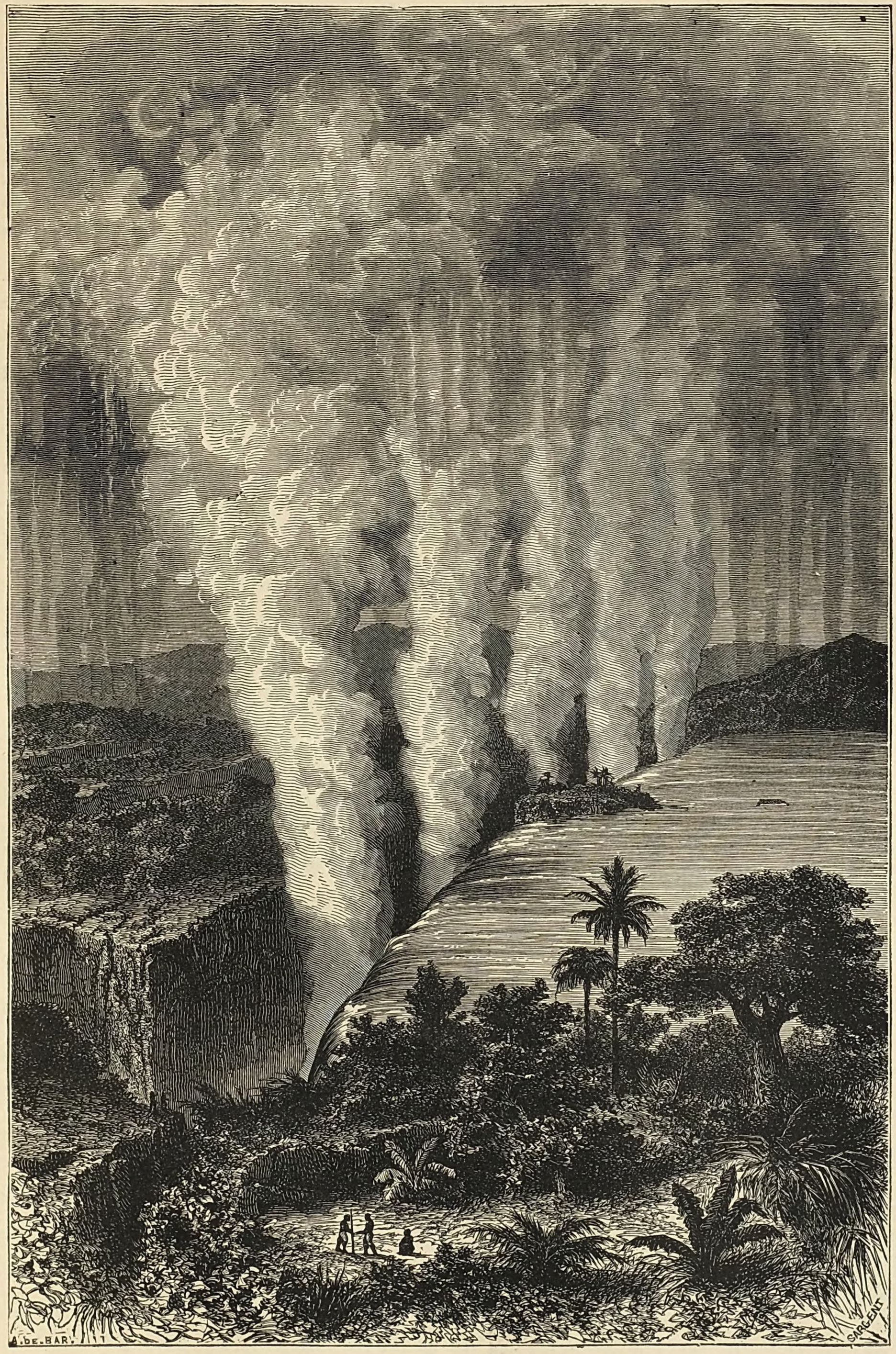
venture to push across. The negro races never work silently, and their paddling is accompanied by a monotonous and melancholy howl, answered by yells and shouts of the chorus, and now and then a shrill boyish scream, while the bray of horns and clang of tomtoms, blown and beaten by men in the bows of the larger canoes, lasts all day, except when some sudden terror reduces everybody to silence. With all this, their usual rate of speed is small enough, at best not over four or five miles an hour, and ordinarily not more than three, or two and a half.

Still further south, in the country of the Makololos, are the wonderful Victoria Falls, discovered by Livingston in 1855. This explorer visited them again three years later, and, in all, about twenty Europeans have since made their way through the difficulties and dangers with which this freak of nature is beset. The river Zambesi rises far inland and flows nearly due south for seven hundred miles of its course; then, at the Victoria Falls, turns eastwardly and makes its way to the ocean, across a distance of eleven hundred miles.

The marvel of these falls is this: we have a river three thousand feet broad, whose strong steady current is suddenly swallowed up by a deep and narrow fissure in the rock which forms its bed, so that the stream itself seems to have disappeared into the earth, until, coming to the very edge of the crevasse, we look down and see it, four hundred feet below, making its way off through the extension of this chasm, in an eastwardly direction, almost exactly at right angles to its former course.

On three sides of the river are ridges, three or four hundred feet high, covered with forests, the red soil appearing among the trees. From a distance of five or six miles away, the five great columns of vapor are seen, white below, higher up becoming darker in color, blown back a little by the wind, and seeming to mingle with the clouds. These columns are caused by the compression the water suffers in its fall into a wedge-shaped space, whose unyielding basalt walls offer no possible escape to the tormented flood.

A small island lies on the lip of the chasm, and is reached in a canoe, by much careful piloting among the rapids. Landing, the explorer makes his way to the edge and looks over. On the right of the island one sees nothing but a dense white cloud, which, when the sun is high, has two rainbows in it. From this cloud rushes up a great jet of vapor like escaping steam, to a height of two or three hundred feet; then, condensing, it falls in a perpetual shower of rain, which chiefly comes to the ground across the chasm, where, some yards back from the edge, grows a row of evergreen trees, kept perpetually wet by this shower. From about their roots a number of little streamlets gather and run down towards the gulf; but as they drop over the steep wall, the ascending vapor licks them up and they disappear. Thus they are always running down, but never reach the bottom. On the left of the

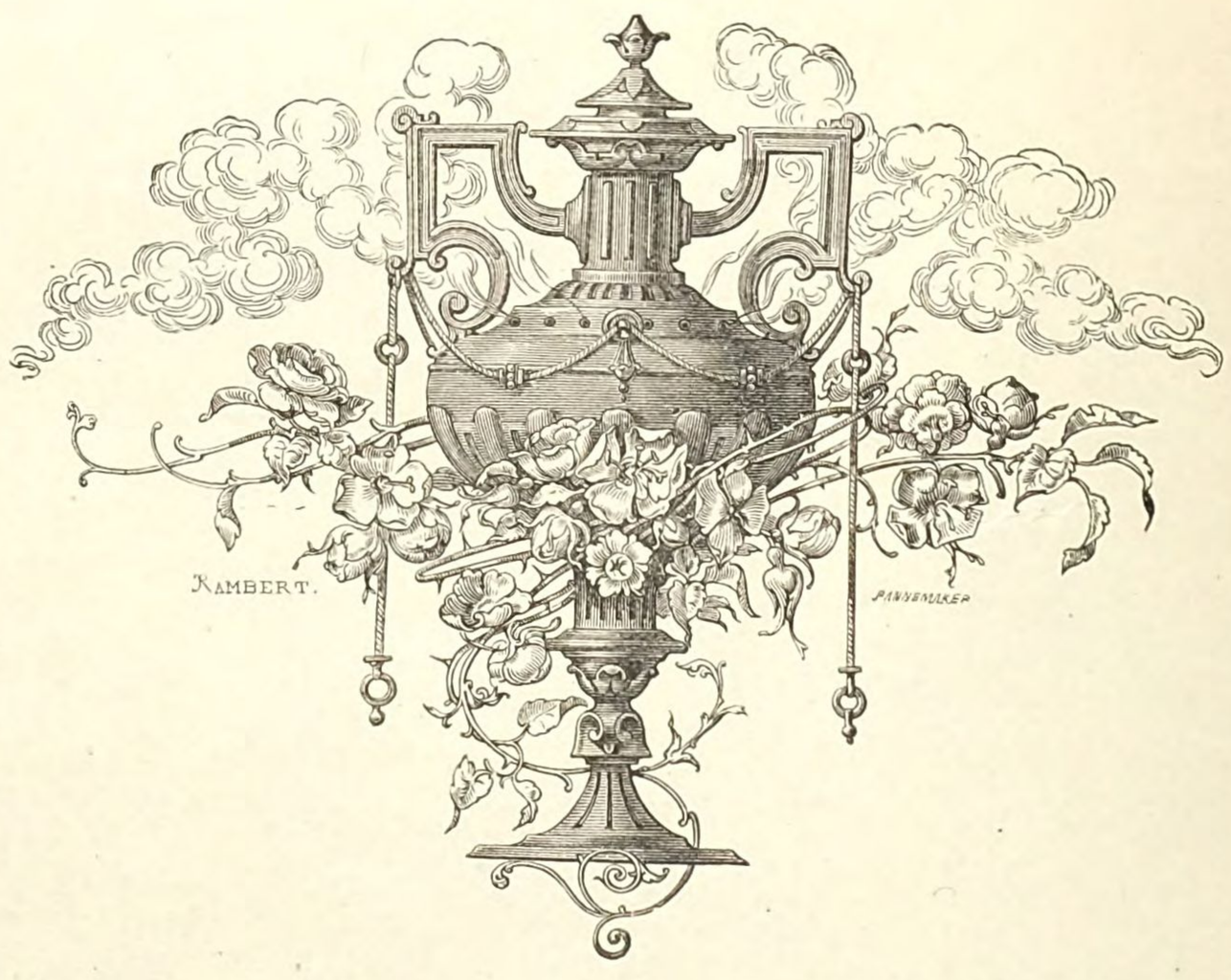


VICTORIA FALLS.

island, the water is seen, a white rolling mass, moving tumultuously towards the escape open to it at the left. Further in this direction the fissure deepens, and its edges are more sloping, so that one can slide partially down towards the water.

At the Falls the chasm is only eighty feet wide, but at the outlet of the river it opens to a width of two hundred and seventy feet, making short zigzags, separated by narrow ledges, scarcely broader in some cases than a footpath.

The illustration on the preceding page is made from a sketch taken on the spot; it is, therefore, for the most part accurate; but to see into the chasm as much as is here represented, the observer must be standing on the very edge of the precipice. The three central columns should be less in size than the others, and all should have a more conical form. With these changes, the reader may rely on the absolute fidelity of the sketch.



MADAGASCAR AND MAURITIUS.

MADAGASCAR, an island lying along the South African coast, separated from the continent by the Channel of Mozambique, is, after Borneo and New Guinea, the largest island in the world, being nine hundred miles in length and four hundred in breadth. Its surface has great variety, making it really a miniature continent, with its system of rivers and mountains, lakes and plains. Along the shore it is generally level, with the exception of the south-eastern coast, where the mountains approach very near the sea; and a great dorsal range, with parallel ridges, runs from north to south the whole length of the island, rising into peaks eight or nine thousand feet high. In this mountainous region of Madagascar there is every variety of highland scenery, countless lakes and rocky torrents, and immense solitary plateaus, quite uninhabited by man.

The population of the island is conjecturally stated by different travellers, their estimates varying from a million and a half to six million inhabitants. It is well understood, however, that four different races are found here: the Kaffirs in the south; in the west, the negroes; at the north, the Arab race; and on the east coast and in the interior, the Malays. These principal races are divided into many tribes, of which the Horas, of Malay blood, are the most numerous and important, and have obtained, since the commencement of the present century, almost the entire control of the island.

The Port of Tamatava is the best on the coast, and is the point at which travellers usually begin their exploration of Madagascar. A journey of a few miles inland or northward at once opens to the view all the marvels of vegetation for which the island is renowned. The road is but a winding footpath, leading up hill and down, crossing chasms on fallen tree-trunks, and everywhere affording glimpses of exquisite pictures, endowed with all the virgin beauty of a primeval paradise.

Two or three varieties of the pandanus are remarkable. One, not over twelve feet high, has the centre leaves of its head stuck together at their points, while the

outer ones, free and pendulous, resemble the leaves with which the Chinese line their tea-chests. Another pandanus, tall and straight as a fir-tree, forty or fifty feet high, and crowned with an upright plume, sends off long horizontal branches, with feathery tips of flag-like leaves, suggesting a gigantic larch, except for the stiffness of its growth.

The *Urania speciosa*, known as the Traveller's Tree, rises from the ground with a thick succulent stem like a plantain, and at a height of thirty feet begins to send out from its centre alternate long broad leaves, the lower ones extending horizontally, and drooping so that the tree is like a great palm-leaf fan in shape. The stem or trunk becomes hard and dry for a distance of ten or twelve feet up from the ground, when it reaches its maturity, in order to sustain the leafy weight above it; but the tree never loses the effect of being some gigantic vegetable. There are twenty or more leaves in all, each leaf being five or six feet long, upon a stalk perhaps eight feet in length. The effect of this cluster of bright light-green leaves, spreading out like a fan on a handle thirty feet long, is most extraordinary and beautiful, and is conspicuous for miles away. Seen along a mountain crest, they are like a row of Indian sachems with plumed heads. Within this leafy cluster are three or four branches of seed-pods, resembling the fruit of the plantain. There are forty or fifty pods on each branch, and when they ripen they burst open, showing thirty or more seeds within, each about the size of a bean, and enclosed in an envelope of dark-blue silk, like that of corn.

The usefulness of the *Urania speciosa* is no less remarkable. Its common designation, the "Traveller's Tree," is due to the fact that it furnishes water to the passer-by, with which he may safely quench his thirst. To obtain this water it is only needful to pierce the leaf-stalks about six inches above the point where they spring from the tree, and each stalk will furnish more than a quart of the pure clear liquid. It is not a secretion of the tree, but the result of a mechanical contrivance, so to speak. There is a natural cavity at the base of each stem, into which the water collected from rains on the broad ribbed surface of the leaf, runs down and collects in abundance. But the Urania might also be called the "Builder's Tree"; its leaves are used to thatch all the houses on the east coast of the island, its stems, neatly laid together, form the partitions and often the sides of the building, and the outside bark, stripped from the soft part of the trunk and beaten flat, is laid for the floors in pieces a foot and a half wide and twenty or thirty feet long. Besides these uses, the leaves of the Urania, when green, are used as wrappers for packages, and are daily sold in the market of Tamatava for table-cloths, dishes and plates, and, properly adjusted, for drinking-vessels and spoons.

The bamboo, abundant in the forests of Madagascar, is exceedingly graceful. In one variety it grows as a creeper, sending out stems composed of small joints feathered with slender leafy branches, and hanging in festoons from tree to tree. In another it

CROSSING A CHASM IN MADAGASCAR.

grows straight and self-supporting to a height of forty feet, fringed at every joint with its circlet of little branches covered with long, lance-shaped leaves. The slender stem swaying in the wind, with all its plumy mass of leaves, is a picture of rare and ever-varying beauty.

The abundance of flowering plants and ferns in this garden of Nature is also marvellous. Orchids in every variety are abundant; not only do they grow in the ground like their kindred in other lands, but — to leave no place unadorned — they find support and nourishment far up in trees. Sometimes in the axil of a great branch of some dead and whitened tree, where there is not left a fragment of bark, one sees a bunch of moss and a cluster of orchids growing with the greatest vigor; or at the top of a tall trunk, thirty feet from the ground, a mass of the Angræcus, with its

The Baobab Tree.

long fleshy leaves; or a bird's-nest fern thrives, as if in a rustic flower-pot, planted there and tended by no hand save that of Nature herself. Countless flowers adorn the hill-sides, and the soft, verdurous meadows; many of them are unfamiliar, but the European stranger sees with delight a blue Tradescantia, like the forget-me-not of home, and heath with pink and lilac blossoms, the same — save for added luxuriance — as that which grows upon the moors of Scotland.

We must not forget the giant and veteran of all tropical forests, the monstrous Baobab, whose age is often reckoned, not merely by hundreds, but by thousands of years. This tree was discovered by Adanson in South Africa, in 1748, and has been found upon the western coast of Madagascar. It attains a height of sixty feet, and its trunk has a circumference of seventy or seventy-five feet. Its lower branches stretch out horizontally to a great distance, and droop at their extremities almost to

touch the ground. The leaves are dark green, and compound, being composed of five radiating leaflets. The flower is large and white, and the fruit about the size of a quart bottle, and, though eaten by the natives, is regarded rather as medicine than food. It seems impossible to destroy this tree, for even when cut down, it still grows in its horizontal position, while its huge roots, forty or fifty feet long, still retain their vitality and send up new growth. The Baobab perishes, however, in some instances, by a singular disease of its own fibre, a softening of the woody tissue, which, going on for some time imperceptibly, suddenly crushes the tree in upon itself, a mass of ruin.

Our illustration below represents a chief's cabin at Tamatava, the seaport to which we have before referred. It shows us a well-built dwelling forty feet long

Chief's Cabin at Tamatava.

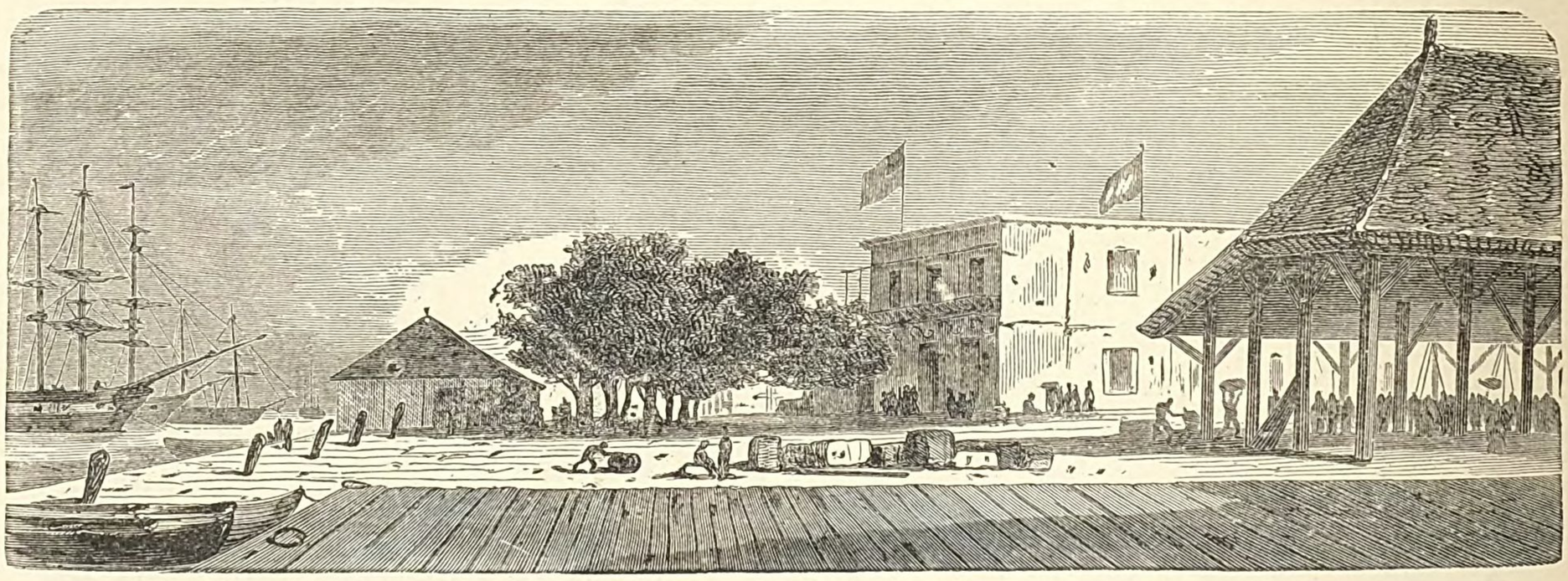
and between thirty and forty feet high. Externally the structure is composed entirely of stems and leaves of the Traveller's Tree. Could we enter, we should find a neat, well-laid floor, a fine large mat in the centre, and an English four-post bedstead in one corner, piled with comfortable sleeping-mats; in another corner, choice cooking utensils and bags of rice and other stores, with materials for making mats. English and European weapons are hung against the walls; in the centre of the room is a table of native workmanship, and, scattered here and there, various chairs and rude seats made of matting, resembling high square ottomans.

The walls of this cabin inside are covered with rofia cloth, a material of native fabrication, made by the women, who weave it, in a kind of rude loom, from the fibrous inner bark of the Rofia palm.

Five hundred miles eastward of Madagascar lies the island of Mauritius, which

has been for three centuries a European colony, belonging in turn to Holland, to France, and to England. Discovered by a Portuguese navigator, it was first taken possession of by the Dutch in 1598, who gave it the name Mauritius, in honor of Prince Maurice of Nassau. They occupied the island till 1712, then relinquished it, to concentrate their strength at the Cape of Good Hope. Three years later, M. Dufresne laid claim to it in the name of the French government, and in 1721 it received the name of the Isle of France. During the French Revolution the island was governed by colonial assemblies, but in 1810 was captured by the English, whose rights being recognized by the treaties of 1814 and 1815, it has since remained an English colony, under its earlier name, Mauritius.

The island is thirty-nine miles long and thirty-four broad, at its extreme dimensions, and has been estimated to contain a population of nearly three hundred thousand inhabitants. Its scenery is extremely picturesque, from the grand and bold

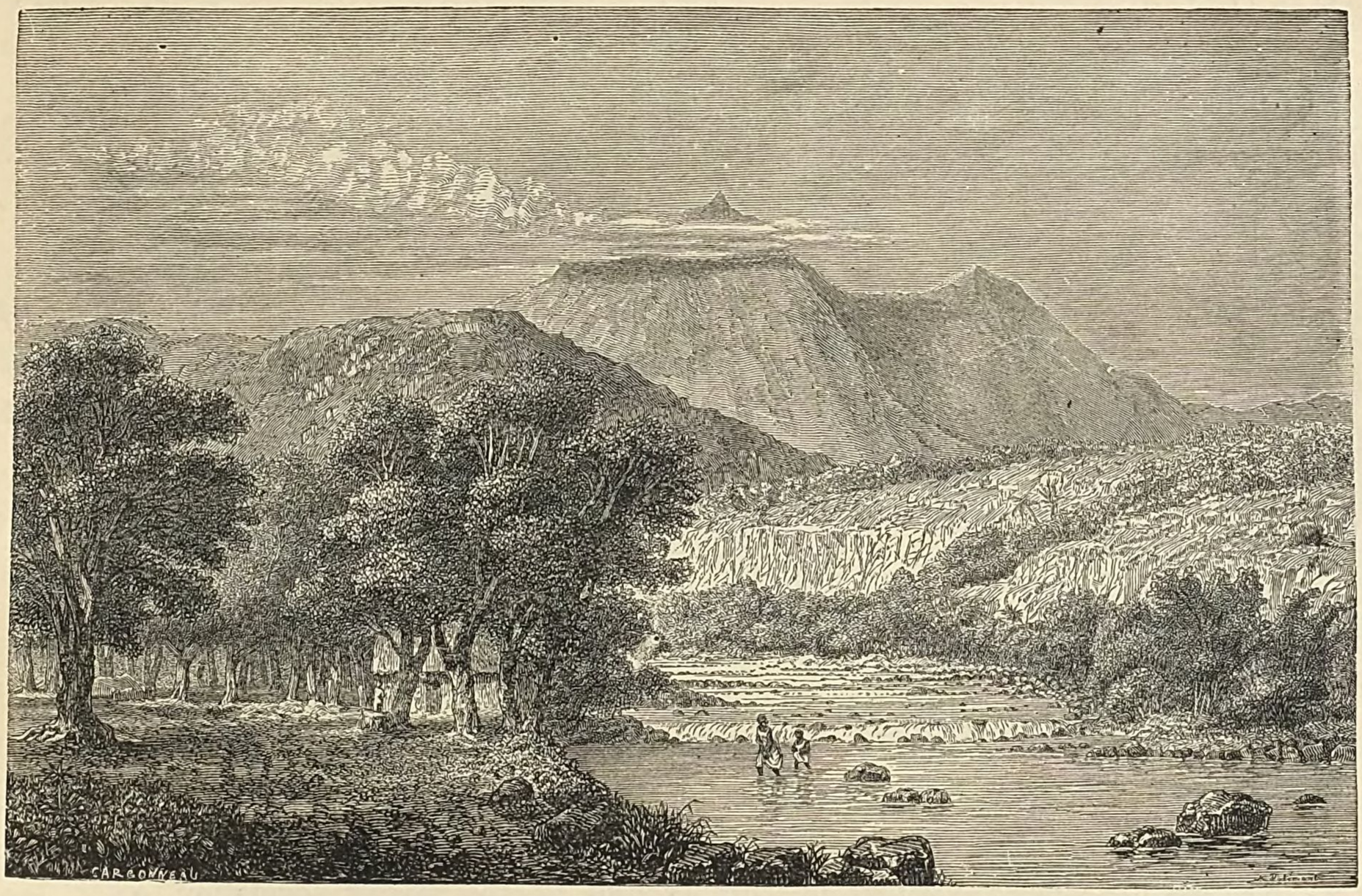


Port Louis, Quay.

outlines of its lofty hills, with their peculiarly formed summits. The northern part of the island is a vast plain covered with cane lands; the centre, an elevated plateau, fifteen hundred feet above the level of the sea; and the coast is deeply indented with bays, affording many good harbors, of which Port Louis, Black River, and Grand Port are the chief. The climate of Mauritius is agreeable, though extremely hot from December to April. In May it begins to grow cooler, and until November remains delightful. The chief industry of the island is the raising of sugar, which, with the rum distilled from the refuse cane, gives Mauritius its importance in the commercial world, and attracts to its harbor the vessels of all nations. The plantations are cultivated by coolies from Madras and Bombay, who are estimated to be two thirds of the entire population.

The city of Port Louis occupies as large an area as Rouen or Bordeaux, but is somewhat less populous. The streets are broad and regular. There is a French cathedral, a Protestant church, two mosques, a fine bazaar built of iron and glass, a

theatre, and magnificent dry docks. The dwelling-houses of Port Louis are one or two stories in height, and usually built of stone, colored white or yellow. They are protected from the sun by verandas and lattice work, and stand within enclosures opening by wide ornamental gateways upon the principal streets. These court-yards are planted with flowers and filled with the rarest and most beautiful tropical trees. Among these are the bread-fruit and the tamarind, with its lofty light-green foliage, the bamboo, the cocoa-nut, and two or three varieties of palms. Of flowering trees the display has no equal in the world, consisting of Ixoras and Hibiscus, with blossoms of every hue; the *Poinsetta pulcherrima*, with its deep crimson bracts; the snap-dragon,



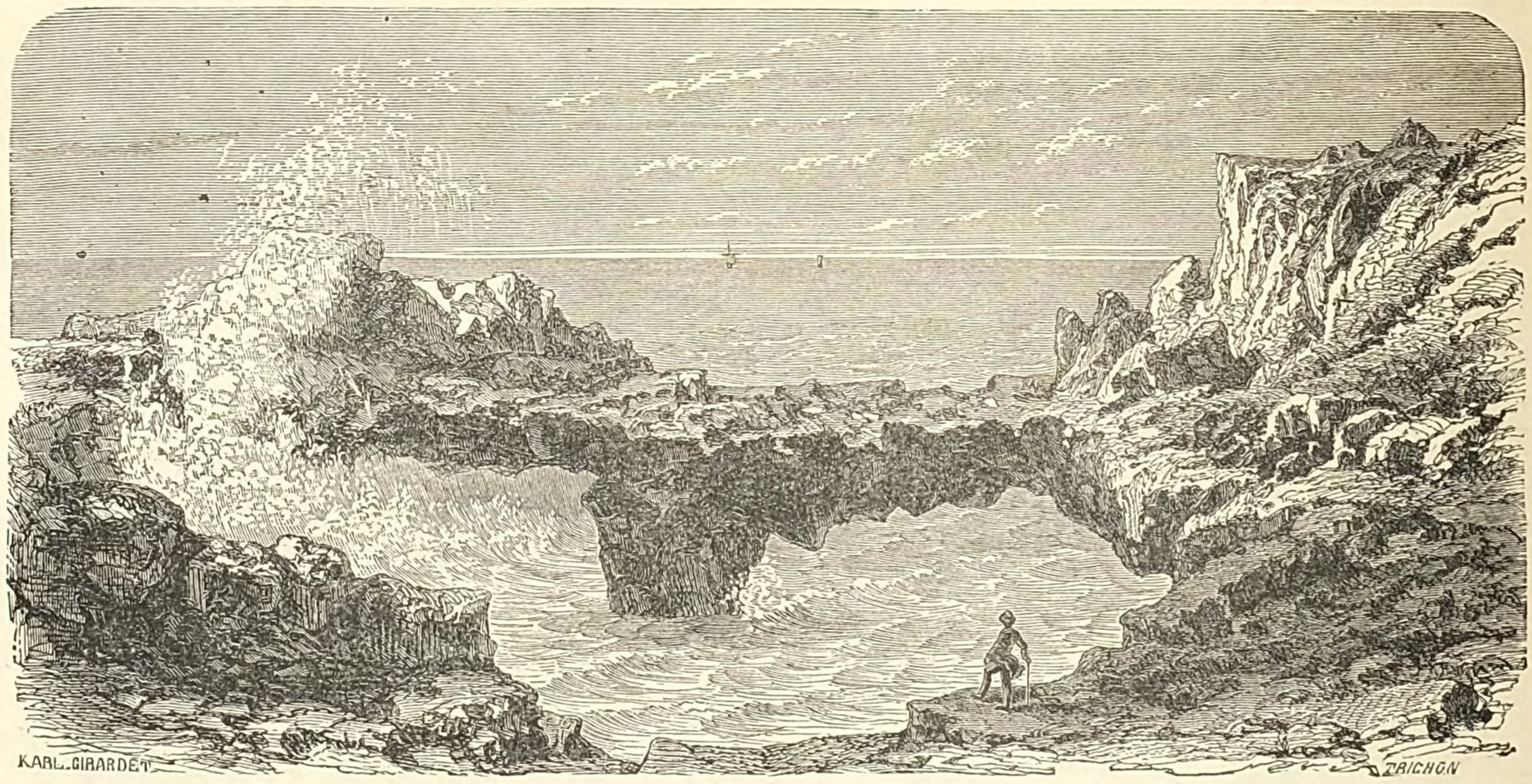
Black River.

or *Pterocarpus*, at times a large tree, all a mass of yellow bloom; the *Eugenia*, with pink, myrtle-like flowers; the *Kiglia pinnata*, or chandelier-tree, covered with purple bells, resembling those of the *Cobæa scandens;* and, conspicuous above all, the *Poincinia regia*, a compact grower and regular in form, forty or fifty feet tall, and from December to April presenting, amid its delicate, pea-green, pinnated leaves, a vast pyramid of clusters of dazzling scarlet flowers. Seen over the tops of the houses, or standing out in open ground, this is one of the most magnificent of trees. Besides these grander displays of floral beauty, Port Louis is full of ornamental shrubs and hot-house plants, growing as freely as our lilacs and syringas. Double and single oleanders, and pink-leaved *Dracænas*, are in every garden. Superb *Braughmansias*, with their white trumpet-shaped flowers, festoon the verandas. The *Stephanotis*

climbs up the lattices, disputing for space with the passion-flower. The *Lantana aurantiaca* forms compact hedges, and elegant cactuses, presenting at times long masses of bright-yellow flowers, are cut off the tops and sides of walls with a sickle or bill-hook.

A few miles south of Port Louis we come to the Black River region, one of the wildest parts of Mauritius. The little stream, represented on page 111, whose very clear waters flow over a pebbly bed, takes its rise in the central plateau of the island, and all the way to the sea is a series of little falls and shallows, a true New England brook.

We have said that the coast of Mauritius is deeply indented with bays abound-



Natural Bridge near Mahebourg.

ing in picturesque effects. Much of this is due to the basalt formation of a large part of the island, which is cut away in sections, so to speak, along the coast by the action of the water, leaving odd-shaped cavities and projections. Of these, one of the most curious is a Natural Bridge, on the south coast, not far from Mahebourg, a town of some importance, founded in 1805. This is, as is seen in the illustration, a deep indentation in the coast, barred by a section of rock yet remaining in spite of the action of the waves. In the centre the rock makes a pier, and an arch extends to the mainland on either side. The top of the bridge, though irregular, affords safe footing, and it is said that an Englishman once crossed it on horseback.

CONSTANTINOPLE AND ASIATIC TURKEY.

FRENCH and Italian steamers enter the harbor of Constantinople at dawn of day. By degrees the pale mists of early morning scatter, and as the anchor bites the sand of the Golden Horn, the traveller finds himself in the presence of a scene whose beauty can never be overstated. The first sight of Constantinople equals one's dreams, and surpasses one's hopes. There are but few things in the world of which this can be said.

To do justice to this picture and to the details that make it up, as day by day we explore and admire them, is, unhappily, impossible for us; but we believe the following illustrations may suggest in some degree the splendors and the contrasts which meet us at every step.

We shall commence with the ancient Palace, which has been the scene of so much history and tragedy, and to-day is unused by the sultan save on state occasions, when some public ceremony takes place within its walls.

The Seraglio is like a city within a city. It is nearly a regular triangle, lying upon the side of a hill which it covers with its kiosques and gardens. Its white walls, crenellated and flanked with towers, are washed on one side by the waters of the Sea of Marmora, rapid as a torrent, and on the other by the calmer current of the Golden Horn. The enclosure measures three miles in circumference. It is entered from the square of St. Sophia by a magnificent gateway, which is no other than the Sublime Porte itself. This gateway is surmounted by a lofty Moorish arcade, supported by four columns, and bearing an inscription in letters of gold.

Entering beneath these lofty arches, we find ourselves in an extensive court, laid out like a park. Here gigantic palm-trees stand in groups upon the velvet turf; further on, avenues of cypress, interlaced with vines whose amber grapes hang in tempting clusters; here and there, tufts of jasmine, stars of perfumed silver, shining amid the dark foliage; everywhere roses. The rose is the sultan's flower.

At intervals under the trees are squares filled with the vegetables of the kitchen

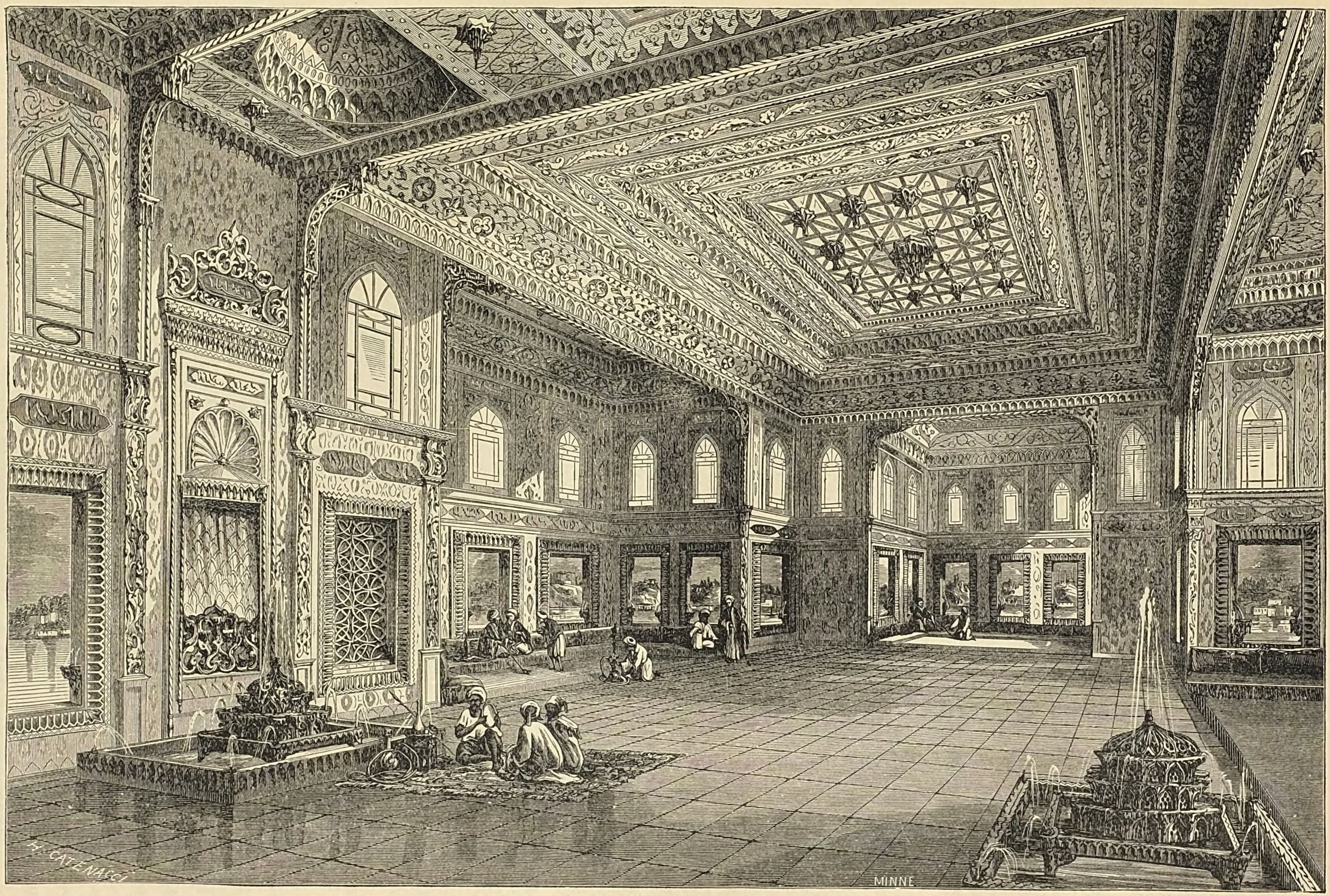
garden; above them wave the tall heads of the Indian corn ; and as a framework for the whole, the most luxuriant grass, cut by long and winding avenues, until at last the view ends with an irregular thicket of oaks and pines.

The Seraglio buildings lie in line, but the architect has known how to avoid anything like monotony in their construction. Long façades are interrupted by pavilions; unexpected projections break the outline just as it would become wearisome ; Persian kiosques, slender, light, aërial, vaporous, are united to one another by galleries, resting on sheaves of columns that expand into ogives and trefoils. Everything is varied ; even the roofs, which are so monotonous in Western architecture, here assume an endless diversity of outline. To awnings of pagodas succeed cupolas sheathed in tin, and sending back in silvery reflections the rays of an Oriental sun; kiosques are coifed with Chinese hats ; flat balustraded roofs extend over the galleries; the dome, in every size and shape, is represented here up to the great cupola of the main structure, which bears aloft the double tip of its golden crescent. With all this, there is much delicate painting and fine carved wood-work ; arabesques that chase each other, changing from blue to green; balconies with iron leafage; and lattices before the harem windows, — making an *ensemble* of endless novelty and charm.

The interior of the Seraglio hardly answers to the expectations raised by its exterior aspect. There are vast apartments without character, great empty halls, whose only charm is in the wonderful water view from their windows.

Two or three halls grouped in a kiosque, and devoted to the sultan's bath, are of exceptional beauty. They are entirely of white marble, and decorated in Moorish style, with an exquisite refinement of taste. The delicate stone, cut like a jewel, spreads out in flowers and foliage, wreathing the capitals of the columns, and the lintels of the doors, with arabesques and festoons. The ceiling of the central hall is a marvel ; small oval panes of glass, so richly colored that one takes them for thin layers of onyx and transparent agate, are set in a network of gold and silver, and transmit a light so soft and exquisite that it adds inexpressibly to the beauty of the apartment. Broad, luxurious divans extend along the walls, and here and there handsome vases decorate the porphyry *etagères*.

One of the most dainty little structures of the Seraglio is the Sultan's Fountain. This also belongs to the best epoch of Mahometan architecture. Its outer walls are of marble, decorated with exquisite sculpture; at intervals, upon a blue background, run arabesques of gold ; above the cornice, with its grotesque yet elegant mosaics, rises the pointed and projecting roof, which gives the whole work its suitable crown. Within, the water tinkles and sings all day long. It is cold and sparkling, and the passer-by has but to ask for a draught, and it will be given him by a servant in the imperial livery, who is on duty there from sunrise to sunset.



SUMMER PARLOR IN THE SERAGLIO.

Leaving behind us the Palace, it is but a few steps to the great Square, now known as the At-Meidan, anciently the Hippodrome. It is a large, irregular, open space, bounded on one side by the wall of Sultan Achmed's Mosque, on the other by ruins or scattered buildings. In the centre is the Obelisk of Theodosius, the Serpentine Column, and the Walled Pyramid. These are all that remain of the glories of the ancient Byzantium. The Hippodrome of those days was a splendid sight when a crowd, brilliant in the richest dress and sparkling with gold and jewels, thronged its porticos, watching the golden cars, drawn by superb horses, scattering with rapid wheels the blue and vermilion powder with which the track was covered for the chariot-races. Besides this living population, the great square was filled with a crowd of marble figures of the rarest beauty. It was indeed an out-of-door museum, to which all the civilized world contributed of its best. Here stood the horses of Lysippus, which now adorn the Venetian temple of St. Mark; here were statues of Augustus and the other emperors, and countless heroes and divinities from the Greek Pantheon. All these, alas! are gone; and where the rude Turkish market is gathered, day by day, under its striped awnings, remain, as we have said, but three relics of the Byzantine time.

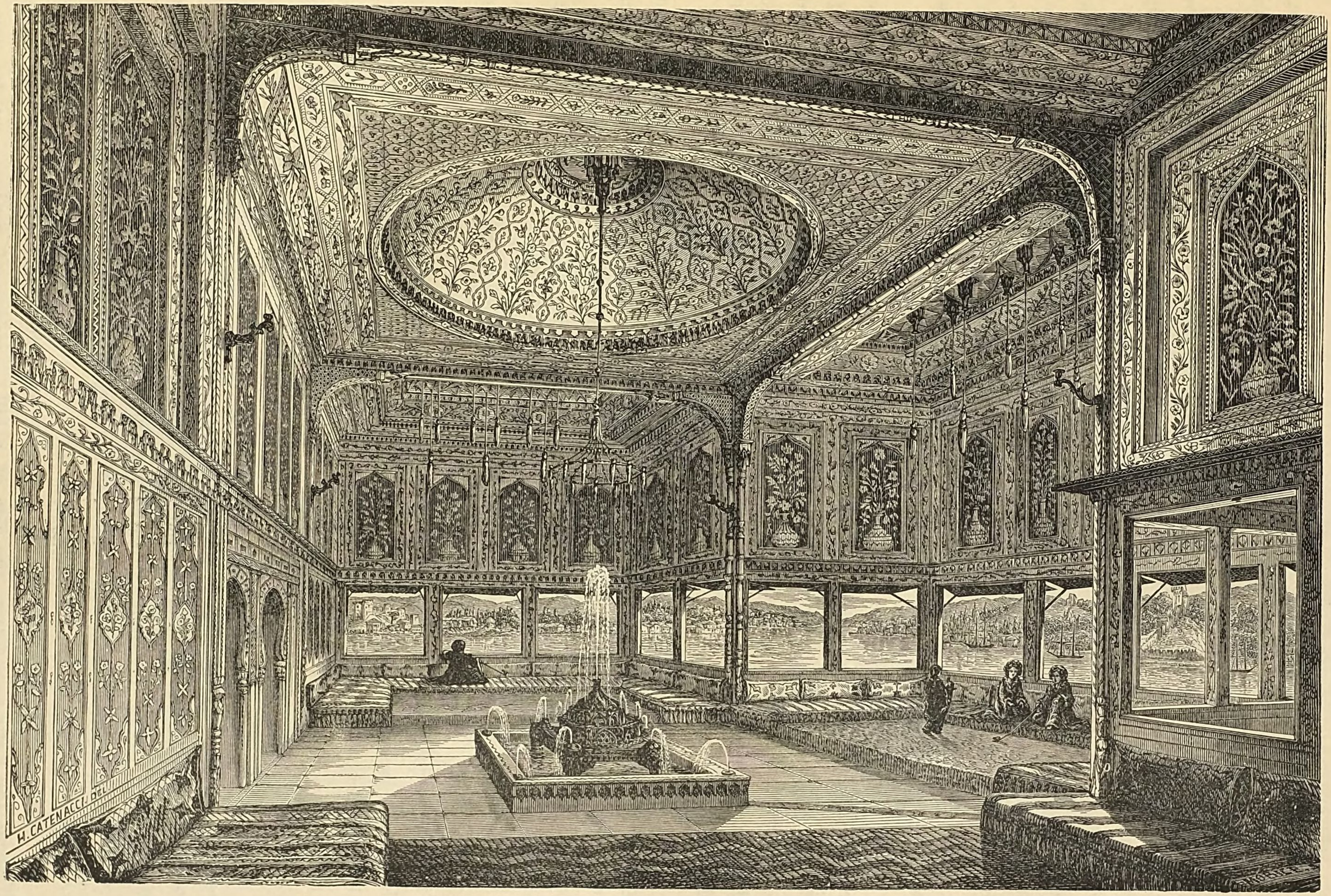
Of these, the Obelisk is in the best preservation. It is a quadrangular monolith, of rose granite, sixty feet high, and about six in diameter at the base, diminishing gradually in size till it ends in a point at the apex. A single vertical line of sharp-cut hieroglyphics marks each of its four faces. It is of course an Egyptian monument, but probably not over three thousand years old, and was brought from Heliopolis. The column is separated from its pedestal by four bronze cubes of suitable size; the pedestal itself is decorated with rude sculpture, representing the mechanical contrivances by which the obelisk was raised to its present position, and bears an inscription telling that the work was done in thirty-two days.

The Serpentine Column is a curious group of three serpents in an erect position, now not more than nine feet high, since their bronze heads were knocked off by Mussulman bigotry. This column was originally offered to Apollo, and stood in the Delphian temple, whence Constantine transported it to his new capital.

Lastly, the Walled Pyramid deserves mention, erected at the extreme end of the Hippodrome, as the turning-point for the chariots in the race. It is now only a shapeless mass of rocks, but was originally all covered with plates of gilded bronze. One may fancy how superb this pyramid was in its time.

And now from Constantinople we step forth, as through some majestic gateway, into the East, and Asia Minor allures us, with her history of so many thousand years, filled with the deeds of illustrious men, and the annals of famous nations.

In Asia Minor it was that Sesostris, thirty centuries ago, hurled his armies against the Scythians, who had swarmed thither from the Asiatic steppes; here was



INTERIOR OF A KIOSQUE IN THE SERAGLIO.

the scene where fable places the achievements of the Greek gods; Homer, who sang their epic, Thales the Wise, the shrewd Æsop, Herodotus, Apelles the wonderful painter, were children of this soil.

Here Greece found as it were a second life in her colonies, which, in splendor of arts and letters, were not a whit behind the mother country, and Rome gladly owned that here was the cradle of her infant years.

This classic soil has been the battlefield of those colossal strifes between the East and West which mark the great epochs of history. Then, when the light of Christianity dawned upon the world in the adjacent Syrian country, Asia Minor gained new splendor from it. St. Paul and St. Barnabas here preached the Gospel; St. John is said to have been bishop of Ephesus, and the lofty destinies of the Seven Churches of Asia were proclaimed by the Apocalyptic Angel.

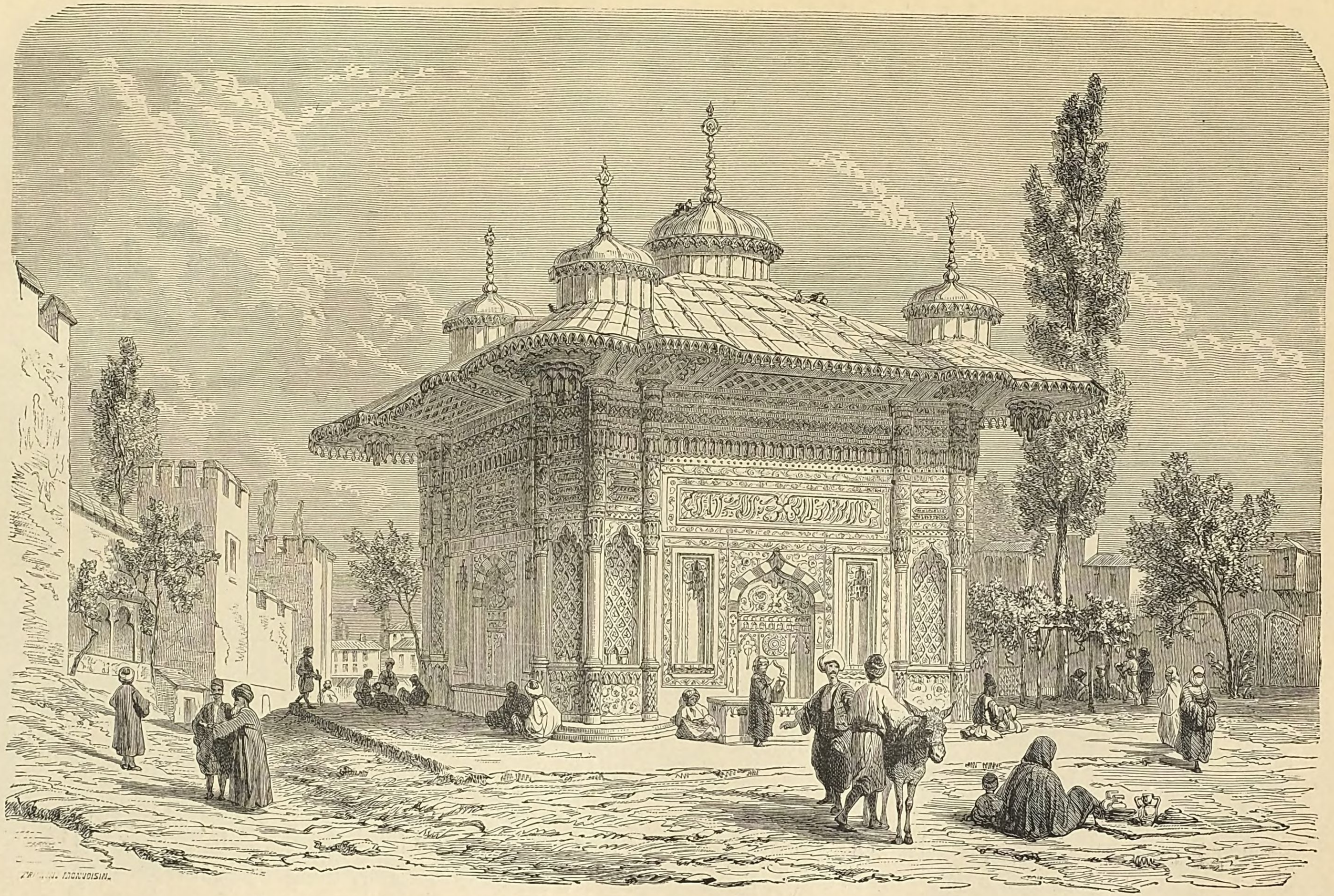
Diocletian, the last of the persecuting emperors, laid aside the imperial purple at Nicomedia; and not far from that town, Constantine yielded up his soul to God. The first Œcumenical Council was held at Nicæa; Ephesus and Chalcedon received in their turn the fathers of the Church; but soon, upon the ruins of Greek temples, and upon the ruins of Christian churches, new invaders planted the standard of Mahomet.

That no people upon earth might remain strangers to this land, that no renown might be lacking to it, hatred to the Crescent drew hither the nations of Western Europe; the armies of the Crusaders traversed it again and again. Peter the Hermit has been here, Godfrey de Bouillon, King Louis of France, the Emperor Frederick Barbarossa.

Remotest Asia, represented by Tamerlane, came in her turn to this rendezvous of the nations. No other country beneath the sun has such a history. The charm of its souvenirs ought, then, to call the traveller to it, even though it offered but little natural beauty to his observation. But this is not the case: its mountains, clad with their dense forests; its rivers and lakes, along whose shores lie the ruins of many an ancient city; its coasts, bathed by the most poetic of seas, — give to the sites of Asia Minor a stamp of grandeur worthy of her historic renown.

Such is the country we shall now hastily explore. Leaving Constantinople at sunset one day, the next day at sunrise we are in the Gulf of Nicomedia, the *Astacus sinus* of the ancients. Like the Bosphorus, it is framed in well-wooded hills, whose slopes were once crowned with villas of the Byzantine nobles; to-day there are only a few scattered hamlets, of no importance save for their names, which are famous in history.

At eight in the morning we drop anchor opposite Nicomedia. The city looks well from the water; it covers the side of a hill, — masses of verdure, cupolas, minarets, showing here and there among groups of houses. Half-way up the hill is



FOUNTAIN IN THE SERAGLIO.

the Sultan's Kiosque, a recent building and of no importance; it recalls neither the palace of Diocletian, built here the same year in which the emperor signed the edict of persecution against the Christians, nor the one erected in the seventeenth century by Murad IV., of which the last vestiges have disappeared. Near it are the ship-yards which for centuries have produced those gallant barks dreaded of Christendom. Times have changed; they no longer prepare danger for Europe; and, indeed, to-day, the chief ship-building is carried on at Constantinople. Still Nicomedia furnishes its contingent. Opposite to us is a frigate in process of construction.

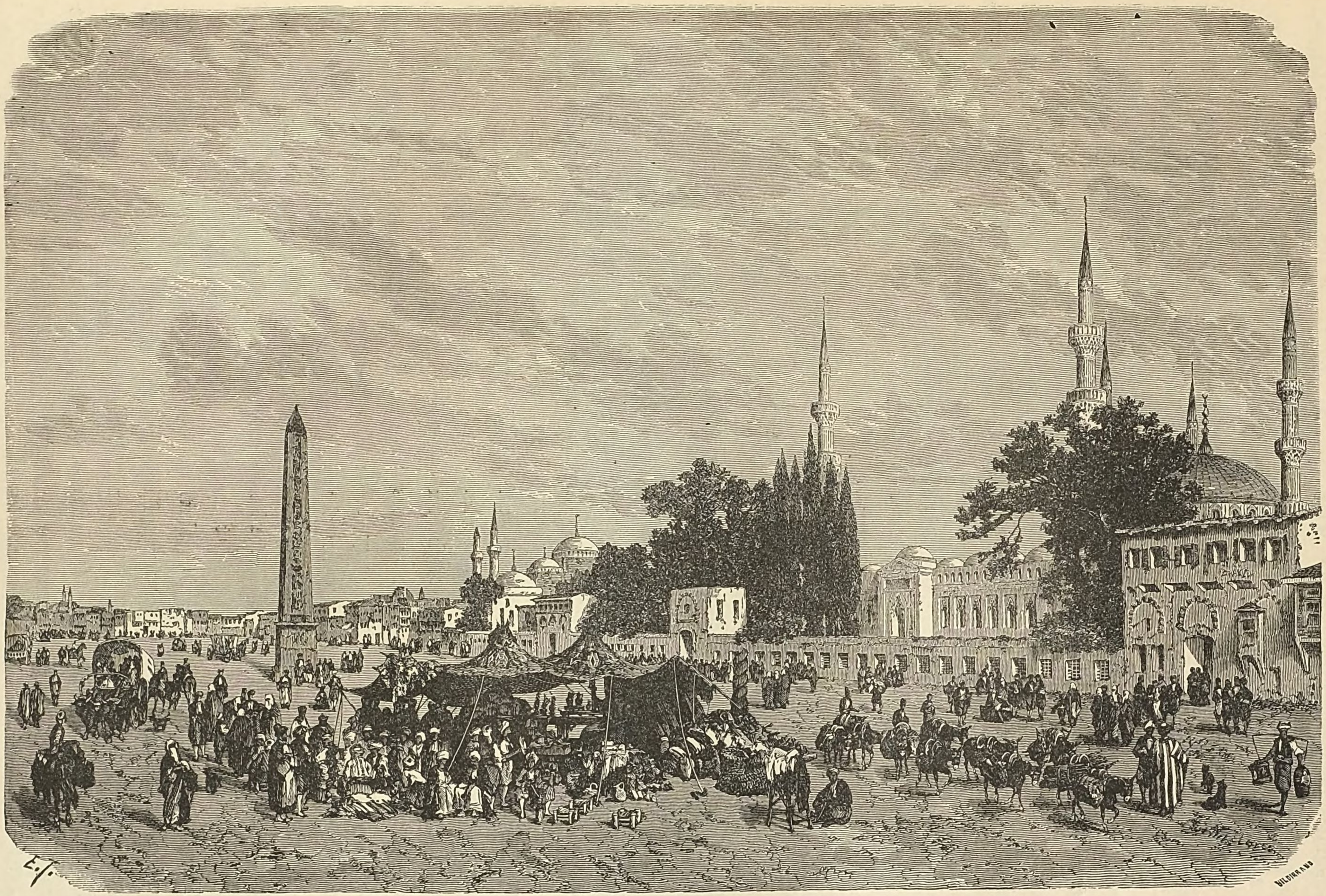
Nicomedia.

Of the ancient Nicomedia, capital of Bithynia, founded by Nicomedes I. at the end of the fourth century before our era, and embellished by the younger Pliny, the Emperor Trajan's representative, and by Diocletian, there remains only a broken bit of wall, and a few other ruins scarce worthy of the traveller's attention. Nicomedia, to-day, is the principal town of Kodja-Ili, one of the territorial divisions of the Ottoman Empire; it has fifteen or twenty thousand inhabitants, the Christian element being about one sixth of the whole population.

A two days' journey on horseback brings us to our second point, the ancient city of Nicæa. As we descend from the wooded plateau separating the valley of the Sangarius from that which is watered by Lake Ascanius, a succession of farms announce to us the neighborhood of a city; this is Nicæa. A thicket of tall trees hides it from view. No noise betrays its existence, and we are close under its venerable walls before we have had time to prepare ourselves for this scene, which touches us so profoundly.

There are few ruins in Asia Minor that appeal so strongly to the imagination as do these ruins of Nicæa. Travellers have not generally done them justice; rarely can the artist find ancient remains of so much importance framed in so charming a landscape; nowhere will the poet feel such a wealth of melancholy interest.

Built by Antigonus, a few years after the death of Alexander the Great, Nicæa would offer to the observer specimens of classic Greek art, had not time, earthquakes, Scythian and other barbarous invasions, and the ravages occasioned by numerous sieges, entirely destroyed its primitive monuments. Fragments of them must be sought, built into more modern edifices, and especially into the city walls, for which they furnished abundant materials. Here, the shaft of a column forms the lintel of a gateway; there, a Corinthian capital is brought to view by the falling of a portion of the sheathing; further on, entire sections of the rampart are covered with tumu-



THE AT-MEIDAN OR HIPPODROME.

lary stones, or made of blocks of white marble, debris of pilasters and architraves, once portions of Greek temples.

Rome, and, after Rome, Byzantium, almost everywhere in Asia Minor, covered the conquered land with a new stratum of architectural achievements. The Nicæan Theatre belongs to the time of the Younger Pliny, who, in his letters, gives Trajan the details of the construction of this edifice ; to-day it is a confused mass of arches and seats, constructed of massive hewn stones, through which struggles up into the light a wilderness of luxuriant verdure. Two of the principal gates of the city are adorned with triumphal arches of white marble, erected in the time of the Emperor Adrian. The defensive works with which they were surrounded in the middle ages, and the raised level of the ground about them, materially impair their beauty.

The Byzantine epoch is represented by remains much more numerous; of these the chief are the city walls, — curious as fortifications, and interesting in the light of the great strifes that many times went on around them. They exist almost without a breach, and measure more than thirteen thousand feet in length. Their original construction goes back to the fourth century ; but they have undergone successive augmentations and changes, as is shown by many inscriptions. The wall is double, composed of the *mœnium* and the *agger*, — to use the Latin terms, — the latter of less height than the former; and is flanked by two hundred and eighty-three towers. The mortar which forms the nucleus of this wall is covered with a sheathing of bricks laid horizontally, alternating with courses of hewn stone, making a sort of odd mosaic. The crenellation which surmounted it has been almost entirely destroyed.

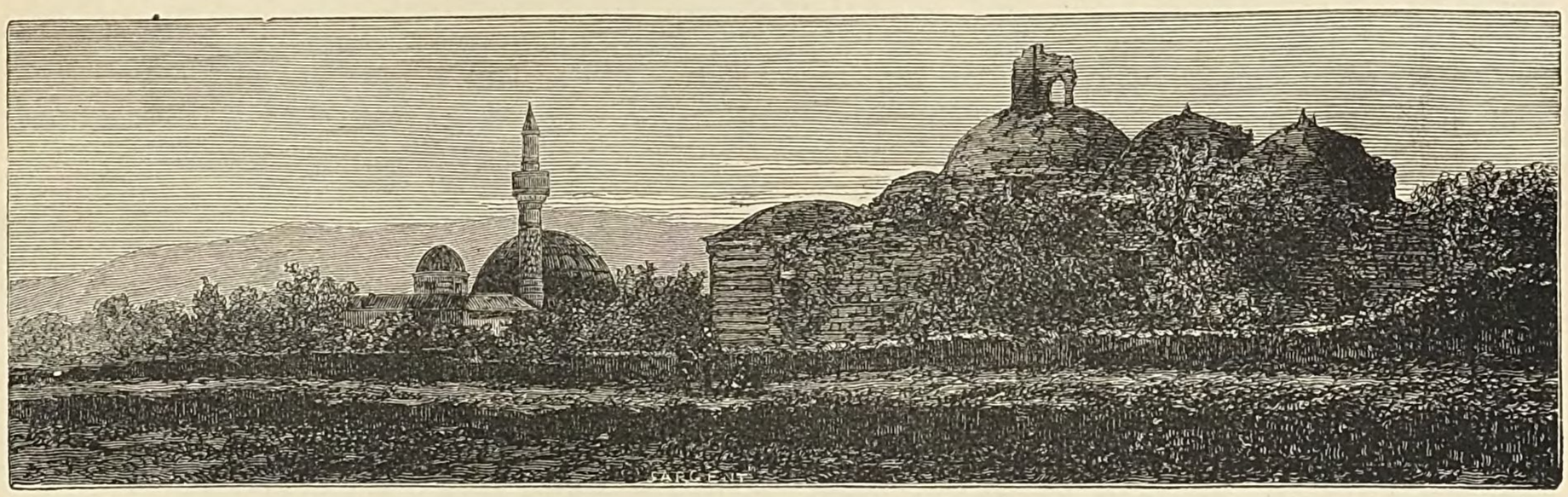
The Lower Empire endowed Nicæa with many churches: one, which now serves the Greeks as a cathedral, seems to date from the twelfth century ; another, the Aghia-Sophia, has lost its cupola and its arches, but presents still an imposing aspect, and shows fragments of mosaics through the invading branches of the fig-trees which have overgrown the place. Some authors have sought to find here the scene of the First Council ; this supposition may be true in relation to the Second Council of Nicæa (788); but it is well known that the first of these assemblies was held in the imperial palace, of which no trace now remains, the church of Aghia-Sophia offering, besides, architectural characteristics which fix its date in the sixth century, and give us reason to believe that it was built by Justinian.

The sultans in their turn have taken no less pains than did the emperors in the decoration of Nicæa. The Seleucidæ of Iconium introduced here that charming architecture, a *mélange* of Indian, Persian, and Byzantine elements, commonly called the Arab style. The first princes of the family of Osman had the good taste to respect its traditions, and it is like a glimpse of Bagdad, when, entering Nicæa by the Gate of Lefké, we suddenly see glittering above the sombre masses of the other ruins, the enamelled *faïence* minaret of the Yéchil-Djami, or Green Mosque, wherein the most brilliant tints, red, green, and blue, rival each other in vividness and lustre.

The mosque is really exquisite; the balustrades around the portico, the arabesques cut into the white marble of the façade, can bear comparison with the most graceful creations of the Moors in Spain. One sighs to see the neglected condition of this beautiful structure.

The Yéchil-Djami is, however, still occupied for purposes of worship. It is attached to a religious school, where a dozen students are maintained. These poor boys occupy a row of little cells, ranged like a horse-shoe around the sides of an orchard, the mosque making the fourth side, and devote themselves to the study of the Koran with every appearance of the deepest melancholy.

Near this building are the ruins of a large and handsome structure, surmounted with many cupolas, and made of brick and stone; this contained baths. It is well known that the Mahometan people attach great importance to establishments of this kind, and believe that it is impossible to make them too luxurious and splendid.



Nicæa. The Green Mosque.

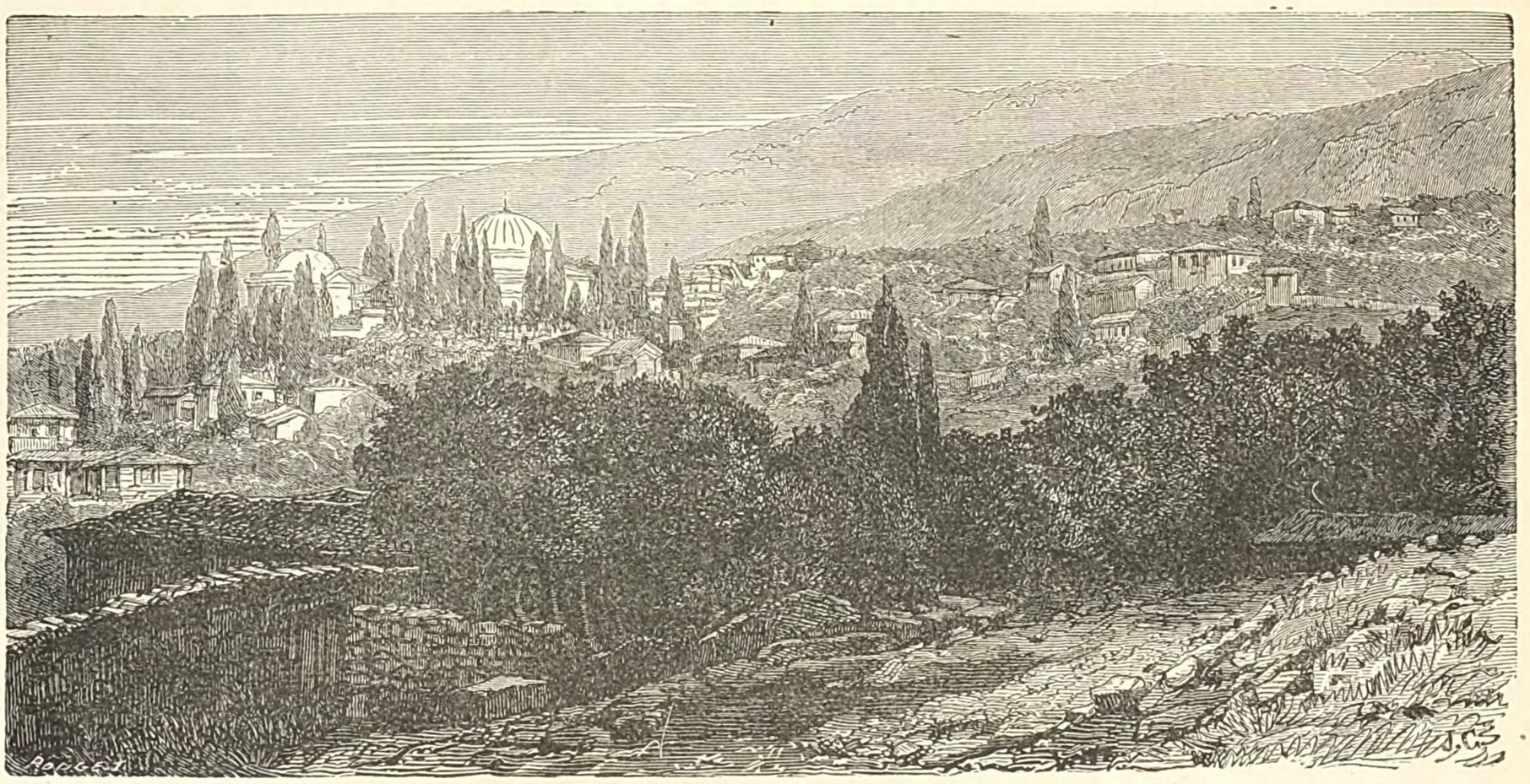
An inscription at the back of the portico indicates their foundress, Nilufer, daughter of Sultan Murad. The date is the year 790 of the Hegira, — 1388 of our Era.

The Yéchil-Djami bears also, graven on its façade, the name of its founder, the famous Vizier Khayr-Eddin, the conqueror at Salonica. The mosque is older by ten years than the baths.

From the midst of this debris of pagan, Christian, and Mahometan edifices, abounding in contrasts as it does, rise the pointed arches and balustrades and minarets of ancient mosques. To describe them would be tiresome; but this wealth of details makes the grandeur of the *ensemble* of the picture presented by the ruins of Nicæa. Gladly would we recall the historic associations belonging to this ancient city, from the time of Constantine and the First Council down to the period of the Crusaders, but space forbids. Nicæa, to-day, is a little city of two thousand inhabitants, mostly Christians. Orchards and gardens grow close around its walls on the east and north, and the leakage of the ancient aqueducts, which bring abundant water from the mountains, makes that side of the town a swamp, and renders Nicæa one of the cities of Asia Minor most habitually ravaged by fever.

Again, a two days' journey on horseback, and about sunset, one evening in September, we come in sight of Broussa, — a wreath of minarets and cupolas hung upon the side of Mount Olympus. The town is but fifteen miles from the seaport of Mondania, whence runs a regular line of steamers to Constantinople, and many visitors to the Turkish capital make the excursion to Broussa a part of their programme. It offers the attraction of a good hotel, and of hot springs highly esteemed as a remedial agency, while the manufacture of silk draws thither many Greek merchants, who make the town their home for a large part of the year.

Broussa is the most beautiful city of Asia Minor. Sheltered on the north by the craggy, wooded heights of Olympus, which furnish it with abundant water, it overlooks a wide and fertile valley; in summer its heat is tempered by mountain and sea breezes; a belt of great trees — cypress, plantain, poplars, chestnuts — surrounds



Broussa. Sultan Bajazet's Mosque.

it, stretching away, as far as the eye can see, to meet the mulberry trees which fill the valley, — entering the city, to unite with the groves that cluster around each mosque.

Next to the three holy cities, Mecca, Medina, and Jerusalem, Broussa claims the veneration of the faithful Mahometan, for it has been the scene of some of the most memorable struggles of Islam. Here rest the mortal remains of their earliest sultans, of their bravest warriors, of dervishes and santons, most illustrious of their saints. There are nearly six hundred tombs of princes and heroes within the walls of this little city, and, they say, as many mosques, oratories, sepulchral chapels, and convents, as there are days in the year. Most of these monuments date from the fifteenth century; many are defaced and ruinous, but by their multitude and variety they all aid in giving Broussa an air of grandeur.

The city lies, for a length of three miles, along a series of hillocks at the base of Olympus; the highest of these hillocks, girt with strong walls and flanked with square towers, bears on its top the city properly so called, the ancient town, the citadel. All the others are but a series of suburbs. But at Broussa, as in many other warlike places transformed into rich capitals, the accessory has become the

Sardis. Ruins of a Church.

principal. The narrow limits of the citadel contain a few crowded streets where the Turks of the old school remain sheltered as in an ark of safety. A little lower down, spreads out, free from limitation, the modern city, whose undulating surface is circumscribed only by a wall of verdure.

Five great mosques adorn the city, two in the inner enclosure, and three in the suburbs, of which the one represented on the preceding page, lies on the east, surrounded by gigantic plantain and cypress trees. Around these mosques, among the

trees, are kiosques — square, round, and octagonal — surmounted by cupolas, and often sumptuously decorated. These are *turbehs*, or mortuary chapels, enclosing the remains of sultans, their wives and children, and a few illustrious personages not akin to royalty. The interior arrangement of these *turbehs* is the same in all cases. In the centre of the hall, a raised platform adorned with precious marbles, *faïence*, and woollen stuffs, supports the coffin, wrapped in camel's-hair shawls, and upon it are placed the turbans and other insignia belonging to the dead. Long wax candles in elegant candlesticks, are placed in rows around these catafalques.

The prosperity of the province of Broussa rests mainly upon the exportation of silk. With few exceptions the silk-worms are distributed in small lots among the peasantry, but the silk-winding establishments are all within the limits of the town, and belong to Europeans — French, Italians, Germans, and Swiss. Five thousand workmen are employed, and the annual production amounts to some three or four million dollars.

Across two mountain ridges, westward, not far from the sea, lie the ruins of Sardis, (see page 125.) Taken by storm, burned, pillaged seven times at least by the Scythians, Persians, Greeks, Goths, and Saracens, shaken to its foundations by the great earthquake which, in the reign of Tiberius, desolated all Asia Minor, the Lydian capital has now no other inhabitants than a few wandering Yourouks, who pitch their tents in the midst of this desolation.

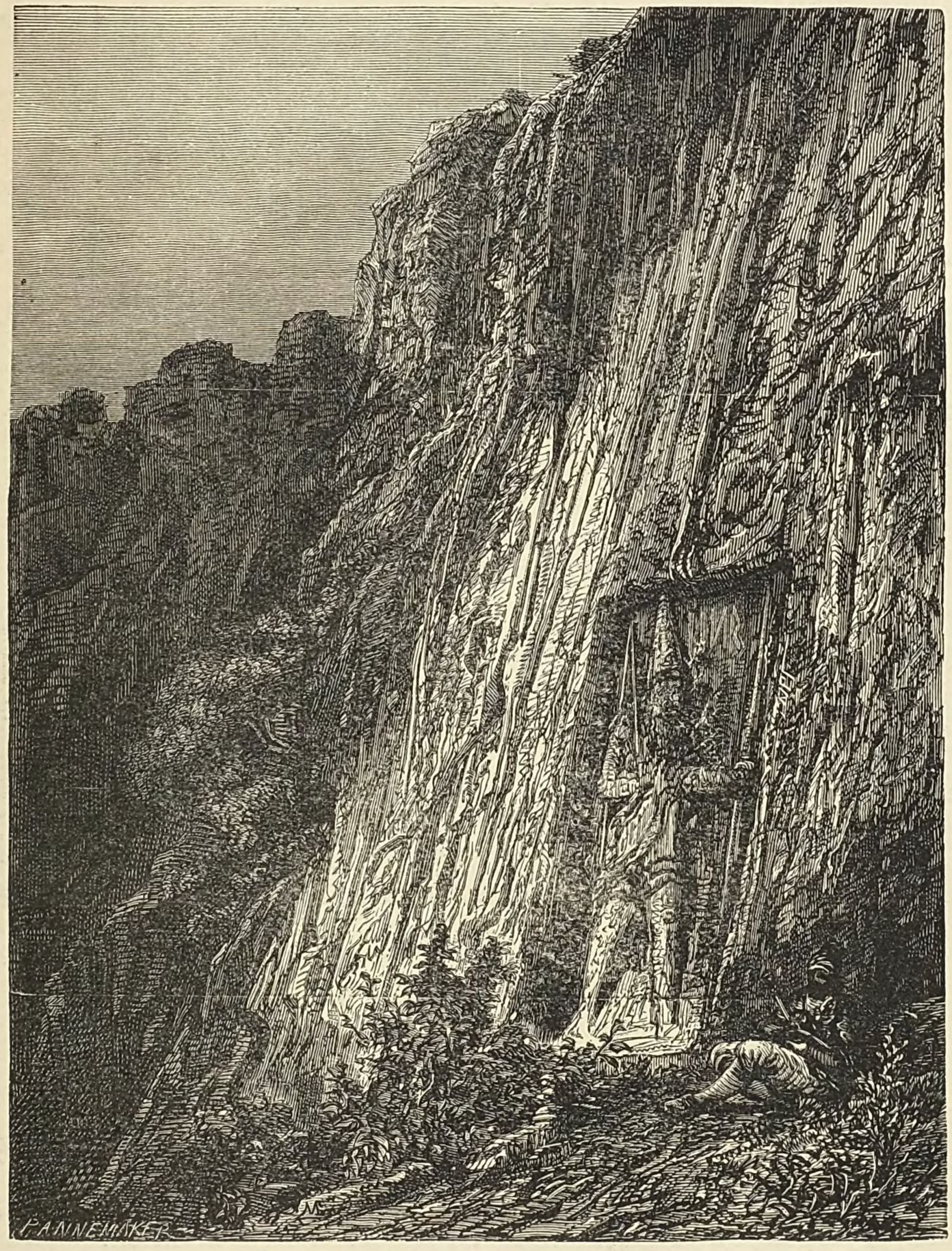
Sardis was once the capital of the great satrapy of Asia Minor, and had its share in all the historical events of its time. Xerxes gathered his army here when meditating the invasion of Greece; Cyrus here organized that expedition which Xenophon has made immortal; Alexander came hither after the battle of the Granicus; Scipio, probably, after that of Magnesia ; and, finally, Frederick Barbarossa saw Sardis already in ruins before — less fortunate than Alexander — he came to the fatal Cydnus.

From Sardis it is a long day's journey on horseback to Smyrna, through a country in part under cultivation and partly overgrown with thickets of rose-laurel. All along the road we meet files of camels, testifying that we are approaching the great business centre of Asia Minor. After having forded a river, near the ruins of an ancient bridge, we stop at a *café*, and leaving the rest of our party to go on directly to Smyrna, we take a guide and make our way towards the mountains lying eastward, with the intention of visiting the famous bas-relief, cut upon one of the rocks in the valley of Kara-Bell, which, according to Herodotus, represents Sesostris the Conqueror.

Our horses made good time, but the road was long, and it was nearly sunset when we reached the spot. Our guide was unable to find the narrow gorge where the bas-relief is situated, but a peasant conducted us to the place, and the last rays of the sun were made available for the photograph from which the illustration (page 127) is reproduced. The reader will observe that the calcareous rock has undergone

the action of time: the breast of the warrior no longer bears that inscription to whose existence Herodotus testified ; the hieroglyphics cut in the rock between the head of this personage and the top of his spear are scarcely now to be perceived.

The general effect and all the details of this bas-relief correspond exactly to what Herodotus describes, with the sole exception that the spear is in the left hand and the bow in the right, contradicting the words of the great historian. It cannot



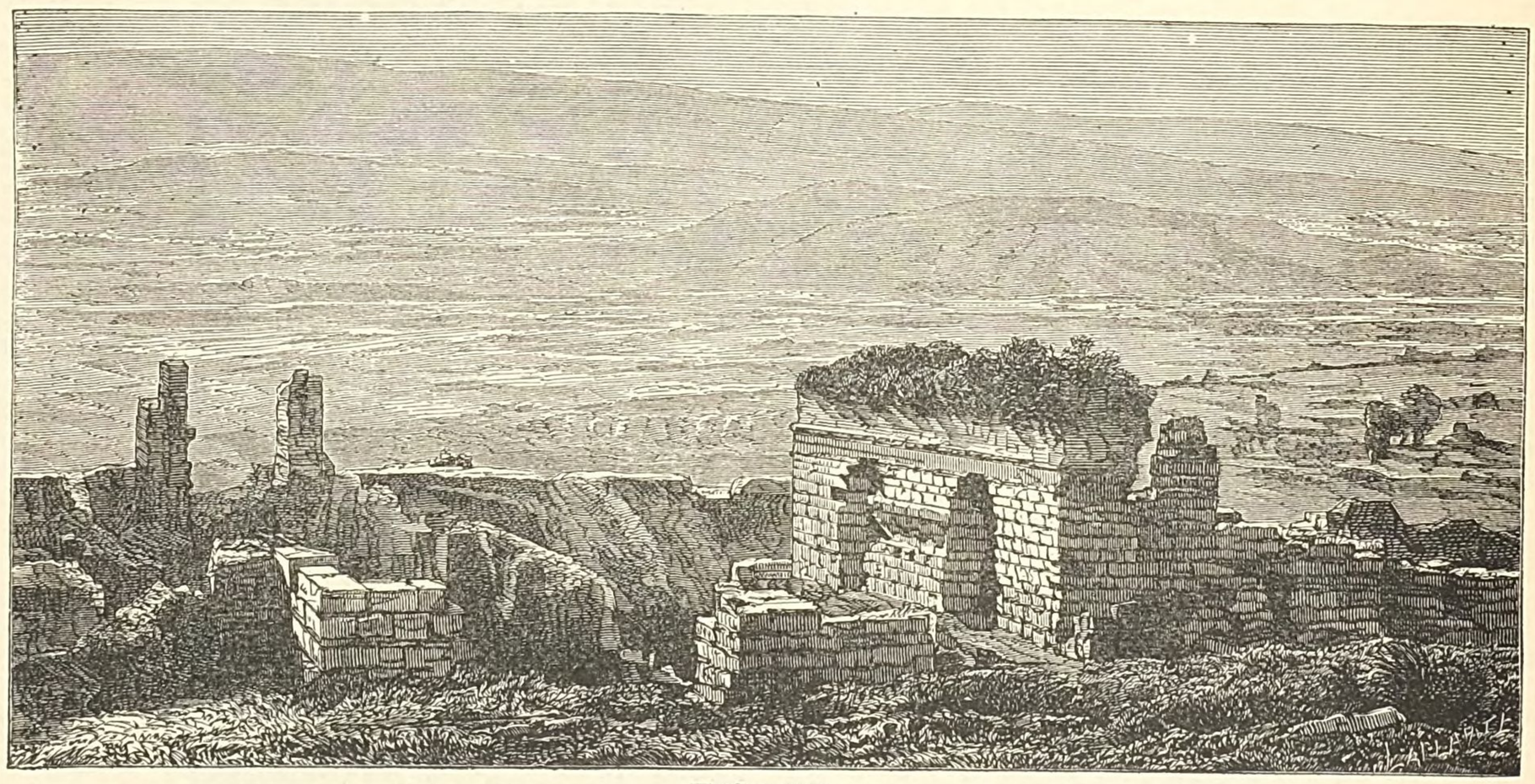
Bas-relief of Sesostris.

be doubted, however, that he referred to this bas-relief of Kara-Bell ; but was he not mistaken in attributing it to Sesostris? Is it not more probably an Assyrian monument? Upon this point, travellers disagree, and we shall not assume to decide the question.

At eleven o'clock the some evening we entered Smyrna, and the following day

we went by rail to Ephesus. This railway from Smyrna to Aïdin is under English management, and, running through a beautiful country and at a good rate of speed, furnishes a delightful contrast to our recent methods of locomotion. Fifty miles, performed in an hour and a quarter, brought us to Aya-Slouk, a Mahometan city, built out of the ruins of Ephesus, and now itself in ruins.

Half a mile from the station a rounded hillock rises in the midst of the valley; this is Mount Prion, from the top of which we overlook the ancient city. How many memories awaken, as we look from the mountains to the sea, over this vast extent covered with the debris of a city, one of the most famous, most flourishing and populous of antiquity! In crossing Asia Minor, at every step we are brought face to face with some great historic epoch. Here, in the metropolis of Ionia, we recall those sons of Attica, transplanted to Asiatic soil, warriors, philosophers, poets,



Ephesus.

artists, men of commercial activity, whose brilliant qualities are still the object of our admiration.

As we look to see what is left of Ephesus, we find that, by reason of revolutions and earthquakes, all things are confused and unsettled. From the day when the Amazons, those fabulous heroines, laid the first foundations of the city, it has been seven times destroyed and rebuilt, and each time its site has varied. Upon the crest of Mount Corissus, bordering the plain on the north, we still find an important portion of the walls constructed by Lysippus at the end of the third century before our era. A tower, which doubtless originally made part of this wall, has long been known as "St. Paul's Prison." The designation arises from some pious tradition, but no historic document substantiates it. This, with the piers of the harbor, now lost in a marsh, is all that remains to Ephesus of the Greek epoch; for the Temple of

RHODES.

Diana, twice built and twice destroyed, has perished so completely that no vestige is left to tell where once it stood.

The other ruins are of Roman origin. There are yet left the broken walls of the Agora, a gymnasium whose massive arches present an air of grandeur, the Stadium, and the great Amphitheatre.

From Smyrna, a line of steamers runs to Beyrout, stopping at the larger islands on the way. A few hours' sail brought us to Rhodes, the most attractive spot in all the Archipelago. It is the Island of Roses, as its Greek name signifies, and its beauty won also from the ancients another flattering designation, "Telchinis," or the Enchantress. But, after all, its history stands for more than all the wealth of its natural loveliness.

Colonized first by the Phœnicians, and afterwards by the Greeks, it was a land of bold sailors, whose alliance was sought in turn by all the great and powerful nations of antiquity. By turns they sided with one or another, as their own interest dictated, and steadily grew in importance and culture. A single one of their works of art has been preserved to us, — the bronze horses of St. Mark, in Venice, originally a gift from the little state to Alexander, which have been transported successively to Corinth, to Constantinople, to Venice, to Paris for a few years, and then to Venice again.

Up to the time of Vespasian the "Rose-island" had maintained its independence; but this emperor, early in the Christian era, seized it, and forming a maritime province out of the neighboring islands, placed Rhodes at the head, and united it to the Roman Empire. Falling to the share of the Eastern emperors, the island by degrees relaxed in its obedience to so distant an authority, and was more or less subjected by Turkish corsairs, who ravaged it from the neighboring mainland.

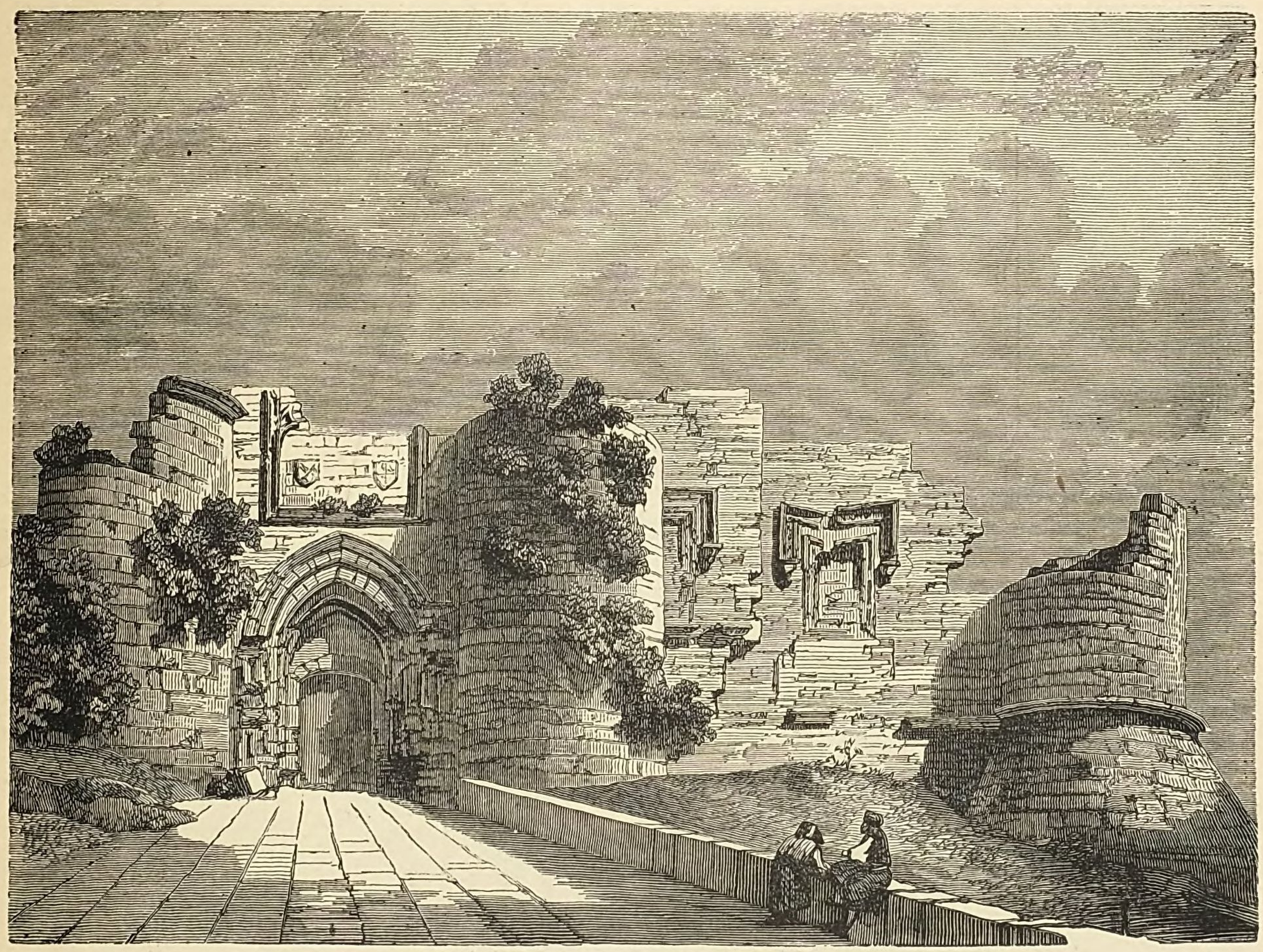
Rhodes was thus situated when the Knights of St. John found themselves finally expelled from Palestine, and looked about them for a new and permanent home. The Grand Master of the Order attempted to negotiate for the purchase of the island, but the Emperor Paleologus Andronicus II. refused to listen, and the Grand Master with his knights seized by violence what had been denied to their peaceful offers. In August, 1310, they made the conquest of the island, and established themselves on it. In December, 1502, they were obliged to capitulate to the Turks, after a six months' siege, and abandoned forever their beautiful abode.

Thus, for two centuries, the island of Rhodes was a centre of Christian civilization; churches and hospitals, and forts and towers, rose on every hand; the island received an imprint of military and religious grandeur which it preserves to this day, and it is for the sake of these historic souvenirs that we have not hesitated to call it the most attractive spot in the Eastern Mediterranean.

As we approach it from the east, the island presents itself as a triangle, whose

base is the sea, and whose apex is the summit of the hill upon which the city lies. Upon this summit, and in the place where once stood the spire of St. John, rises a little white minaret, resting on a broad base of masonry, square, discolored by time, as on a socle far too large for it. This is all that remains of the tower of the cathedral, mutilated by Sultan Soliman's cannon-balls.

The base of the triangle is extremely imposing. A line of crenellated walls, pierced with loop-holes and embrasures, extends from east to west, varied by towers, round or square, massive or graceful, proudly showing the blackened bays through



Gate of the Grand Master's Palace.

which once thundered the defiant cannon of St. John. To the two extremities of this harbor defence are joined the city walls, which, ascending the hill on the west, cross the ridge, and come down on the east, altogether forming a solid cuirass, no flaw in which the Turks could ever have found.

All these crenellated walls, these towers and defensive works, bear, perfectly well preserved and recognizable, armorial insignia which prove their construction due to the early chiefs of the Order of St. John. By the great number of these escutcheons, thus cut and stamped into the walls, we see that every one of the Grand Masters was ambitious to add to the decoration or the defence of their beautiful city.

But now this is a silent seaport. The crumbling walls which surround it have been deprived of their brave garrison. The whole city seems to lie asleep. Only the soft summer breeze blows over it, and steals their perfume from the flowers of this enchantress isle. Can it be the same that was once so mighty a naval power in the days of Villeneuve and d'Aubusson? Is this the stronghold that used to ring with military *fanfares*, and tremble responsive to the thousand-mouthed roar of its bold cannon?

For more than three hundred and fifty years, the Turks have been masters in

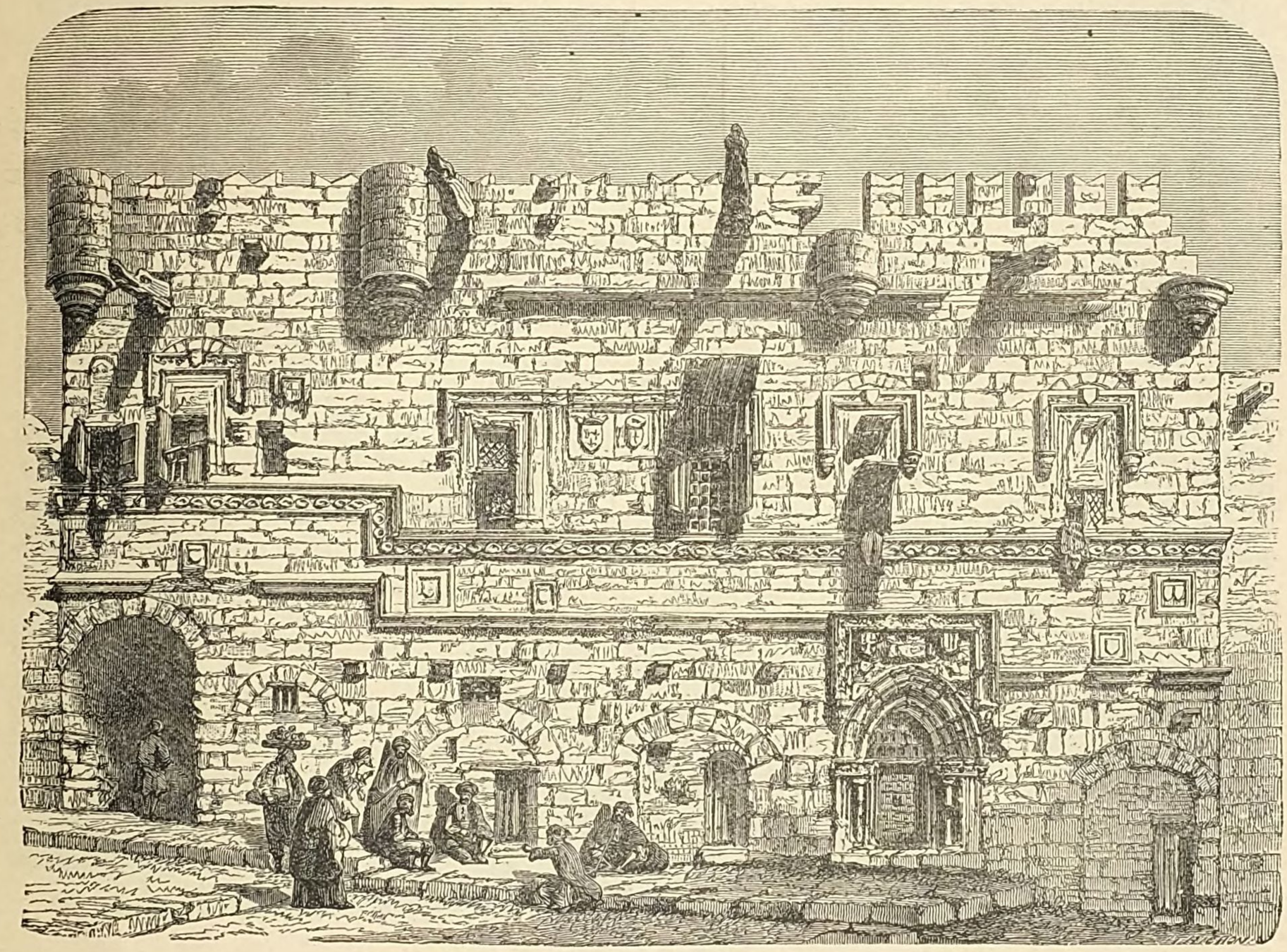
Church of our Lady of Victory.

Rhodes. Grass grows in the middle of the streets, and the footpath across the fields is lost in the luxuriant vegetation that crowds upon it. But the moss covers great paving-stones of palaces; behind this ivy are concealed illustrious escutcheons; through this embrasure, where the long cannon bearing the *fleur-de-lis* of France seems to watch for an enemy who shall never come, you can look out upon peaceful meadows and slopes, covered with wild tulips, and gay with the narcissus and the rose. Amid the flowers rise dwarf marble columns, tombs of Soliman's warriors.

From afar we can see — for the Turks have taken pains to whiten it, as if to make it more clearly visible — the great Tower of St. Michael, the Mediterranean waves breaking in foam at its feet. The harbor is not large; but little space was

needed at home for the ships belonging to the Order, forever denied repose by the interests of religion and Christian Europe.

Making the tour of these formidable ramparts, the desolation of the scene grows painful. The wheels of the carriages are sunken deep into the earth and overgrown with wild vegetation; the cannon are eaten with rust. Within the city, one is struck by the martial aspect it still presents in spite of the kiosques and the Turkish minarets which have striven in vain to disfigure it. Among the most important buildings we find in the upper part of the city the high walls of a palace. Its great gate, flanked by two towers, and surmounted by two coats of arms, recalls the Grand Master



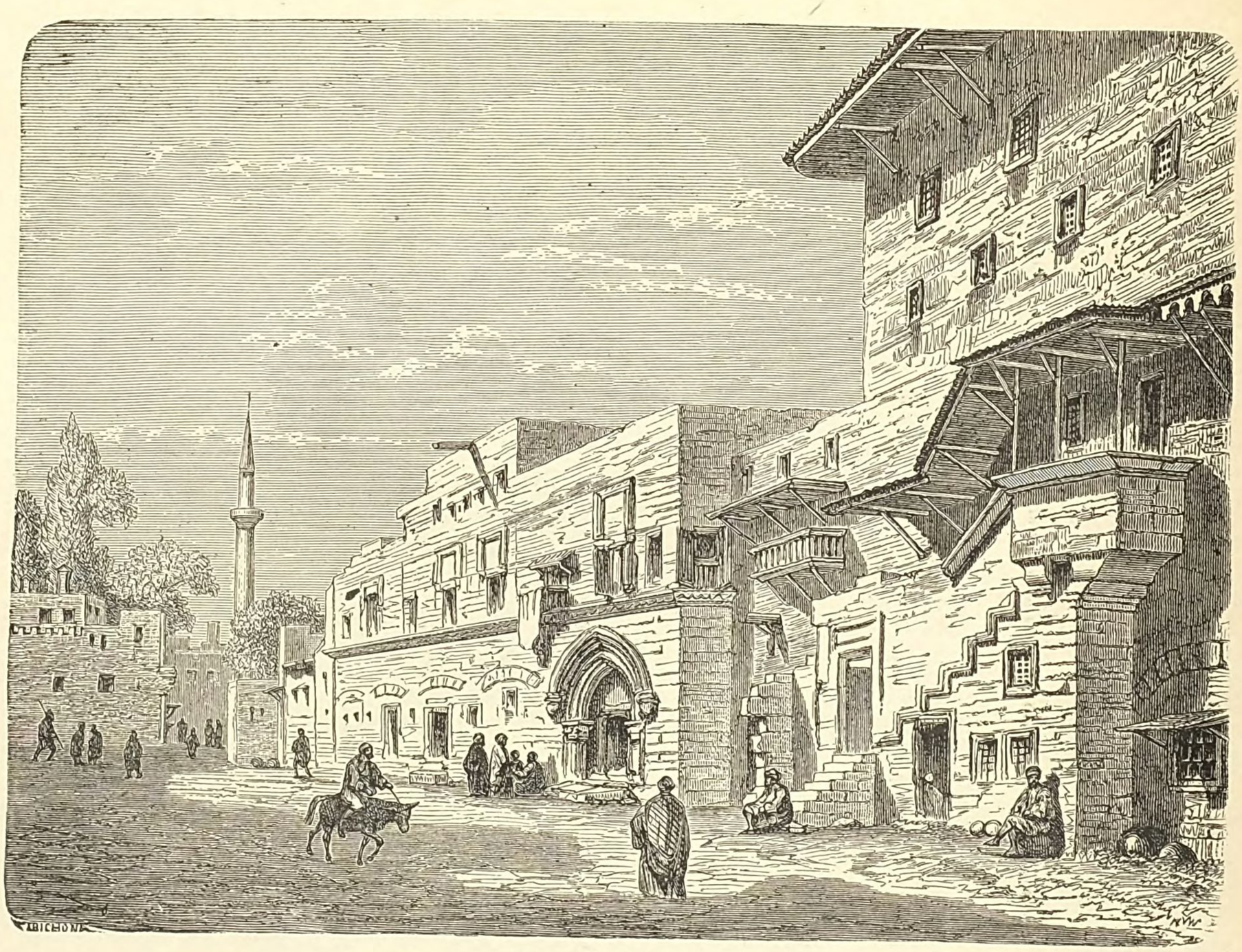
Priory of France.

Helion de Villeneuve, one of their chiefs to whom the Order owed many important works. The building has served as a military hospital, and even as a state's prison, without losing all its early splendor.

Near by are the ruins of a church (see page 132) which commemorates the heroic defence of Rhodes by d'Aubusson. It was built close to that part of the wall where once took place a fierce struggle resulting in the retreat of the Turks; and in 1522, when the Ottoman invaders again, and this time successfully, besieged the city, they bombarded this church with special fury, and reduced it to its present condition.

In the famous Street of the Knights, not far below the old cathedral, we come

to the most beautiful and interesting of all the buildings in Rhodes. It is an edifice crenellated like a citadel, with turrets along the top of the wall. Broad, lofty windows, framed in delicately carved mouldings, open from the façade, and announce a noble dwelling. This was once the house of the French grand prior. Three dignitaries of this high rank successively occupied it, if we may believe the shields and dates which are placed between the windows and above the elegant arched door. This palace, in perfect preservation, has been appropriated as the residence of a Turkish dignitary. Its façade is disfigured by little wooden balconies and lattices, reducing the great, wide-open windows, which became a knightly life *sans peur et sans*



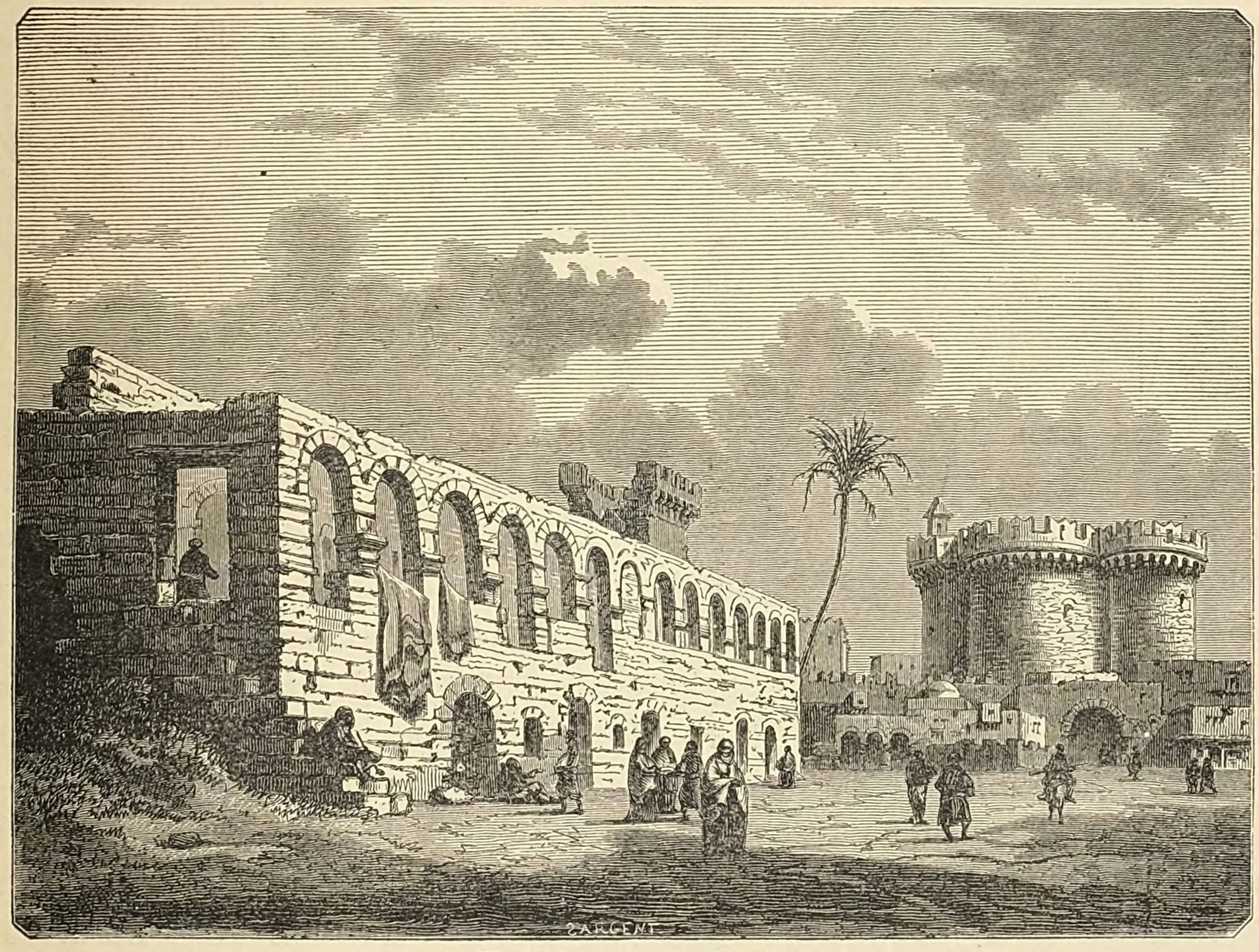
Jewish Street.

reproche, to the proportions of the Oriental peep-hole. Still, we owe our gratitude to the present proprietor, who has spared — little as he must value the memory of the early inmates — these brilliant coats of arms, whereby the palace preserves inviolate a remnant of its ancient splendor.

Continuing our way down the hill, we come upon the Jewish quarter, where a wide street, and the armorial bearings upon many of the houses, attest the former residence of the knights. Here, at every step, one sees enormous balls of marble or granite, half buried in the soil, or ranged like boundary marks against the houses. They were projectiles, in their time, thrown from those basilisks, or great mortars two

and three feet in diameter, which the Turks used during the siege when their attack was hottest against this part of the town.

Here we find ourselves again in the neighborhood of the harbor, and its imposing line of high and solid walls. Many towers rise from these fortifications which the tide laves, and beneath which the galleys of the Order sought their moorings again after many a wild cruise in distant waters against the Infidel. A fine old building, with a row of arched windows, in this part of the town, is yet called the Knights' Barracks. It is roofless, but in the lower story vagrant Turks make their abode,



The Knights' Barracks.

and carry on a desultory housekeeping, quite unabashed by the memory of their chivalrous predecessors.

In the sunset we sailed away from Rhodes, taking the Austrian steamer for Jaffa, the nearest seaport to Jerusalem.

So many illustrations exist, and so minute descriptions have been given of the Holy Places of the Christian faith in Jerusalem, that we shall offer to our readers more novelty in presenting them instead with a picture of the Mosque of Omar, which is, after Mecca and Medina, the most sacred place on earth to the followers of Mohammed.

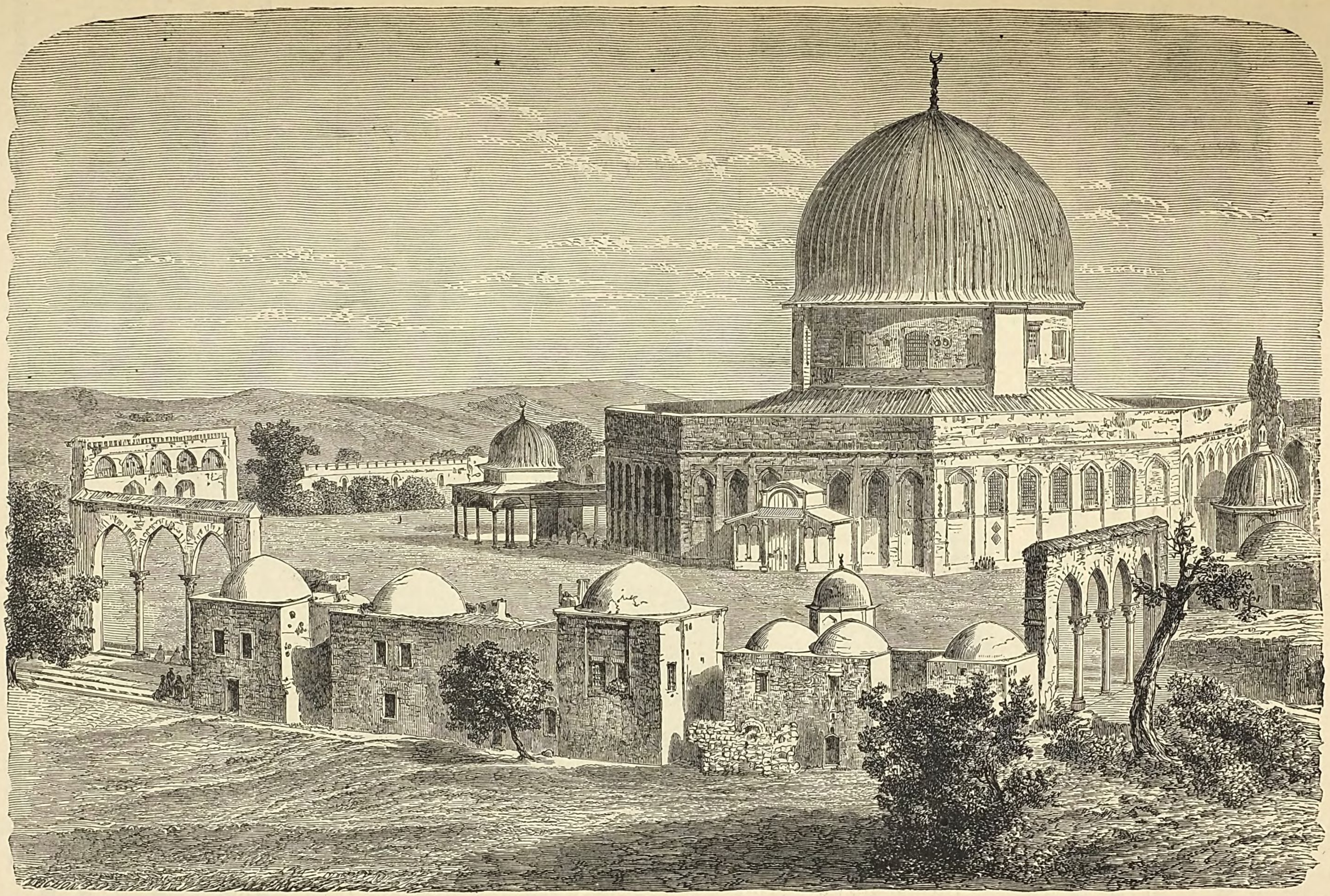
Seventy thousand angels, according to the poetic imagination of the Orientals,

guard this mosque, built on the site of Solomon's temple; but to common eyes it seems to be in the charge of two hundred negroes, whose houses, situated around the esplanade, are somewhat harmful to the general effect. The mosque itself is a great octagonal building, of which each side is over sixty feet in length, and is pierced by seven arched windows. It is crowned by a dome, covered with lead and surmounted by a crescent, and presents a most impressive appearance, especially when the sunlight strikes upon the colored mosaics which form a portion of its walls.

Entering the mosque by one of its four gates, we find ourselves for the moment almost in darkness; the daylight can scarcely make its way through the colored glass of the windows; but by degrees the eye becomes accustomed to the obscurity, and finds delight in the rich simplicity of the place. Both the floor and walls consist of gray or white marble; twenty-eight columns of brown marble form a concentric nave, while a second row of sixteen columns supports the dome covered with gilded arabesques. Exactly under this dome is the sacred rock, sixty feet long and fifty broad, believed to be the one on which Jacob rested his head when he had the vision at Beth-el; it is separated from the rest of the mosque by a wooden balustrade of elegant workmanship, and is, besides, sheltered by a *Khymé* of red satin, in memory of the tent given by the Lord to Adam, when, after a hundred years' separation, our first father found Eve again upon a mountain near Mecca. This rock is precious to the faithful Mussulman, not merely on account of its association with the patriarch Jacob, but also because he firmly believes that a cavity on its surface is the imprint of Enoch's foot at the moment of his departure for heaven, and further, that five other indentations on it are the marks of the angel Gabriel's hand. When Mahomet, they say, was carried up into heaven, this rock wished to follow him, but was held in place by the angel, who left the imprint of his fingers upon it.

Eight steps lead down into the lower chamber of the mosque, which has the sacred stone for its ceiling. On this side the stone is called, in Arabic, "the Tongue," in memory of the salutations it exchanged with the Kalif Omar. The latter, on discovering Jacob's pillow among the ruins on Mount Moriah, exclaimed in his delight, "*Es selam aleik!*" (Blessings upon thee!) and the rock immediately replied, "*Aleik esselam!*" (Upon thee, blessings!) All around this room, which is nearly circular in form, are the praying-places of Abraham, of David, of Solomon, and of Khader; for all the prophets, from the beginning of the world, have recited their devotions here.

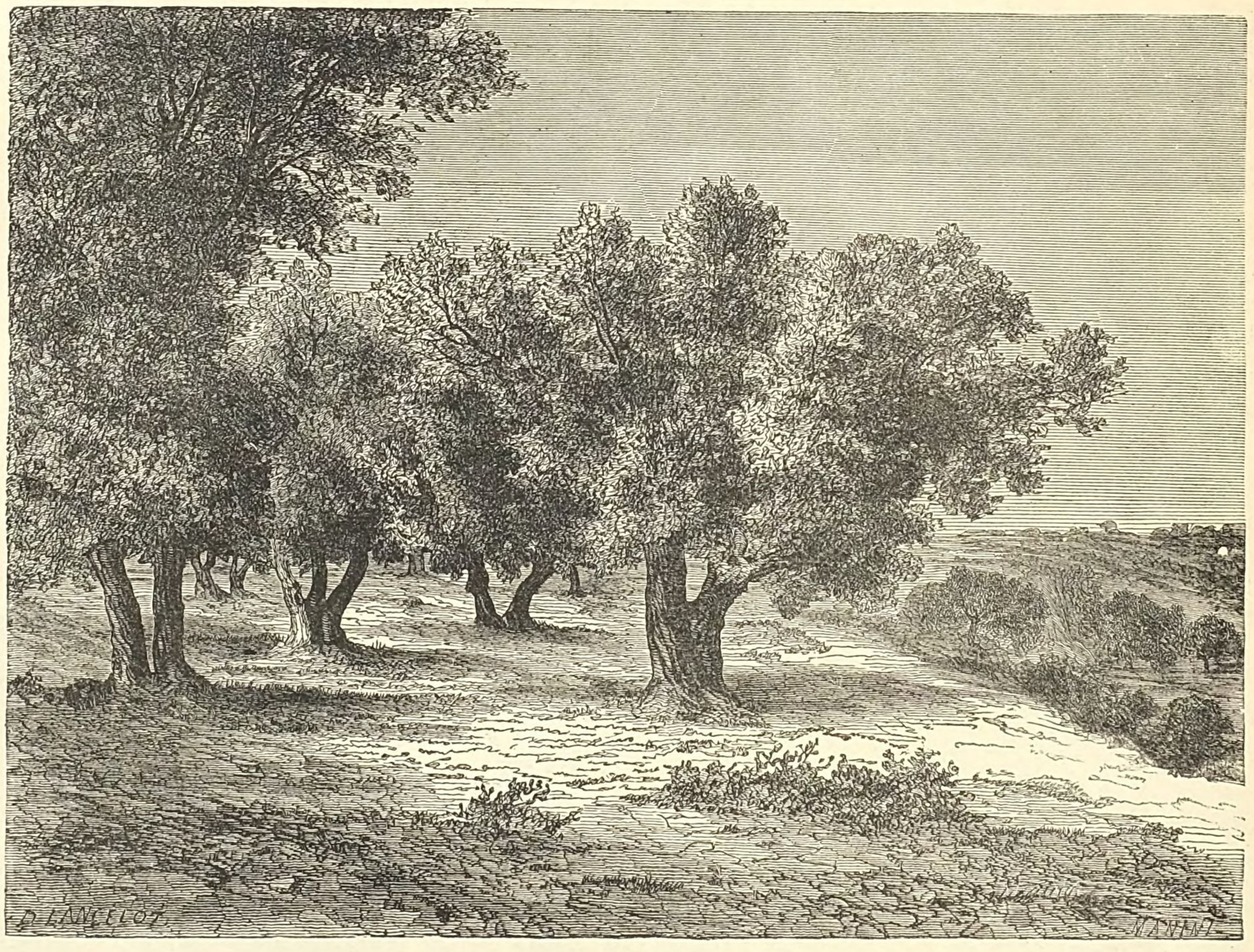
Returning to the temple above, we make the tour of the gallery, beginning on the north side. There is a great pulpit, used specially on Fridays; a desk of wood, bearing a superb copy of the Koran more than three feet in length, said to have belonged to the Kalif Omar; a buckler used by Hanezé, the companion of the Prophet; the standard of Omar, and David's mace. Further on, a curiously shaped stone attracts



MOSQUE OF OMAR, JERUSALEM.

attention; it is the saddle of El Boraq, the steed of the angel Gabriel. Outside the mosque, they show us the place where this horse was fastened while the Prophet waited to recite his last prayer before being taken up into heaven.

The temperature of Jerusalem varies according to the seasons. In winter, it sometimes falls as low as the freezing-point, while in summer the heat is usually extreme. Selecting a cloudy day, we make an excursion outside the walls. On the south lies the valley of Hinnom, where sacrifices were offered to Moloch; the Hill of Evil Counsel overhangs it on the right. A little further on are the ruins of an ancient



Aceldama.

church dating from the Crusades; and further yet, the Aceldama, with its great gloomy olive-trees.

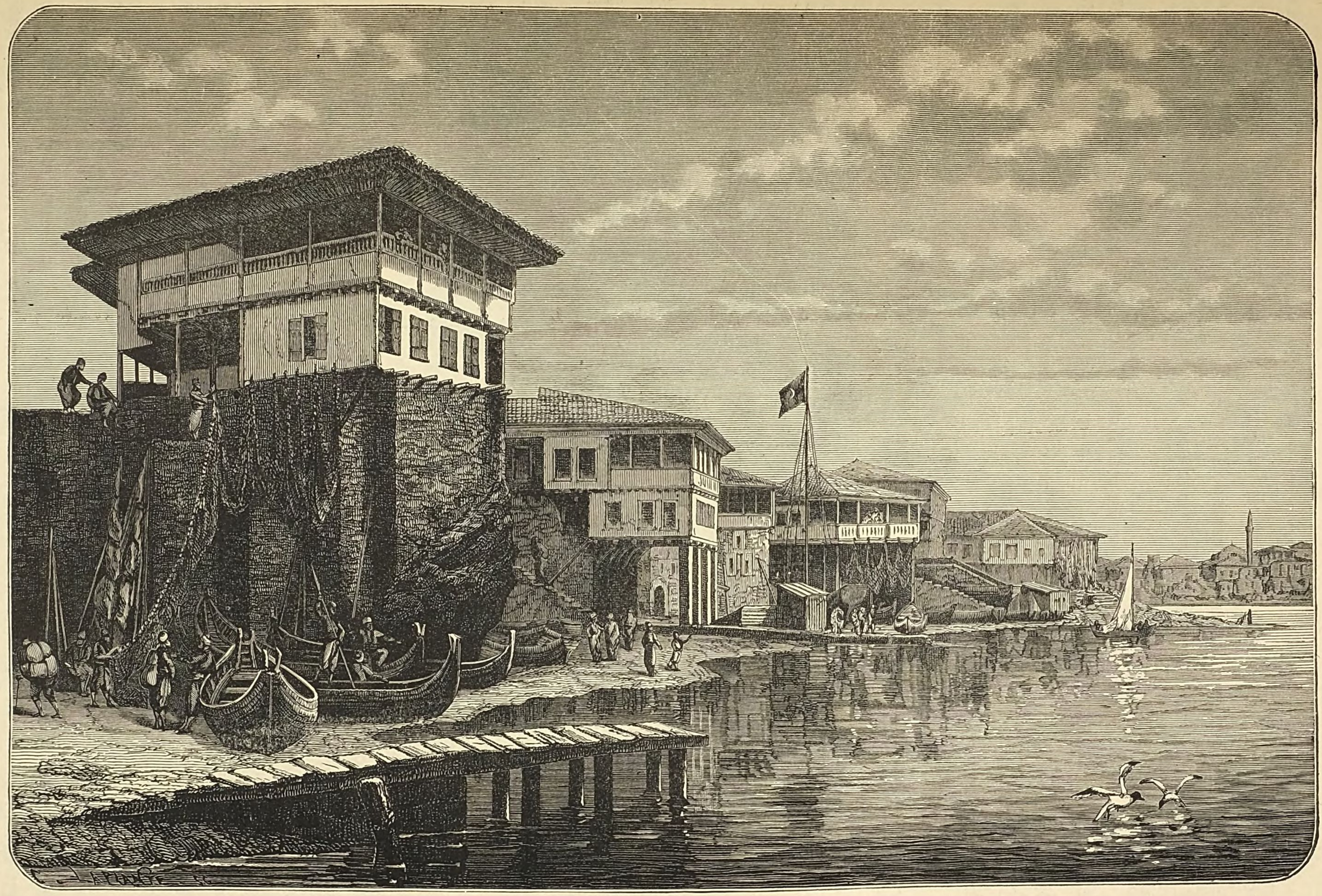
Wherever the Arabs have been, there we find their most exquisite work lavished upon baths and fountains. Nothing could be imagined more beautiful than the Arab fountain in a narrow street in Jerusalem, which we passed on the last day of our stay there, and with whose graceful arch and delicate carving we close the brief list of our illustrations of the Holy City.

The traveller in Asia Minor will have missed a region of the grandest scenery if he fail to explore the Taurus, a chain of mountains occupying the country anciently known as Cilicia.

ARAB FOUNTAIN.

Cascade in the Taurus.

The Taurus has been famous from all antiquity: tradition makes it the home of gods and heroes; it is full of the ruins of an ancient civilization, which perished completely under the invasion of the barbarous nomads of Central Asia. Among these mountains, formerly peopled by so many different nations, to-day there are only little hamlets of poor Turkomans, and encampments of Yourouks, whose existence is rather that of the brigand than of the shepherd.

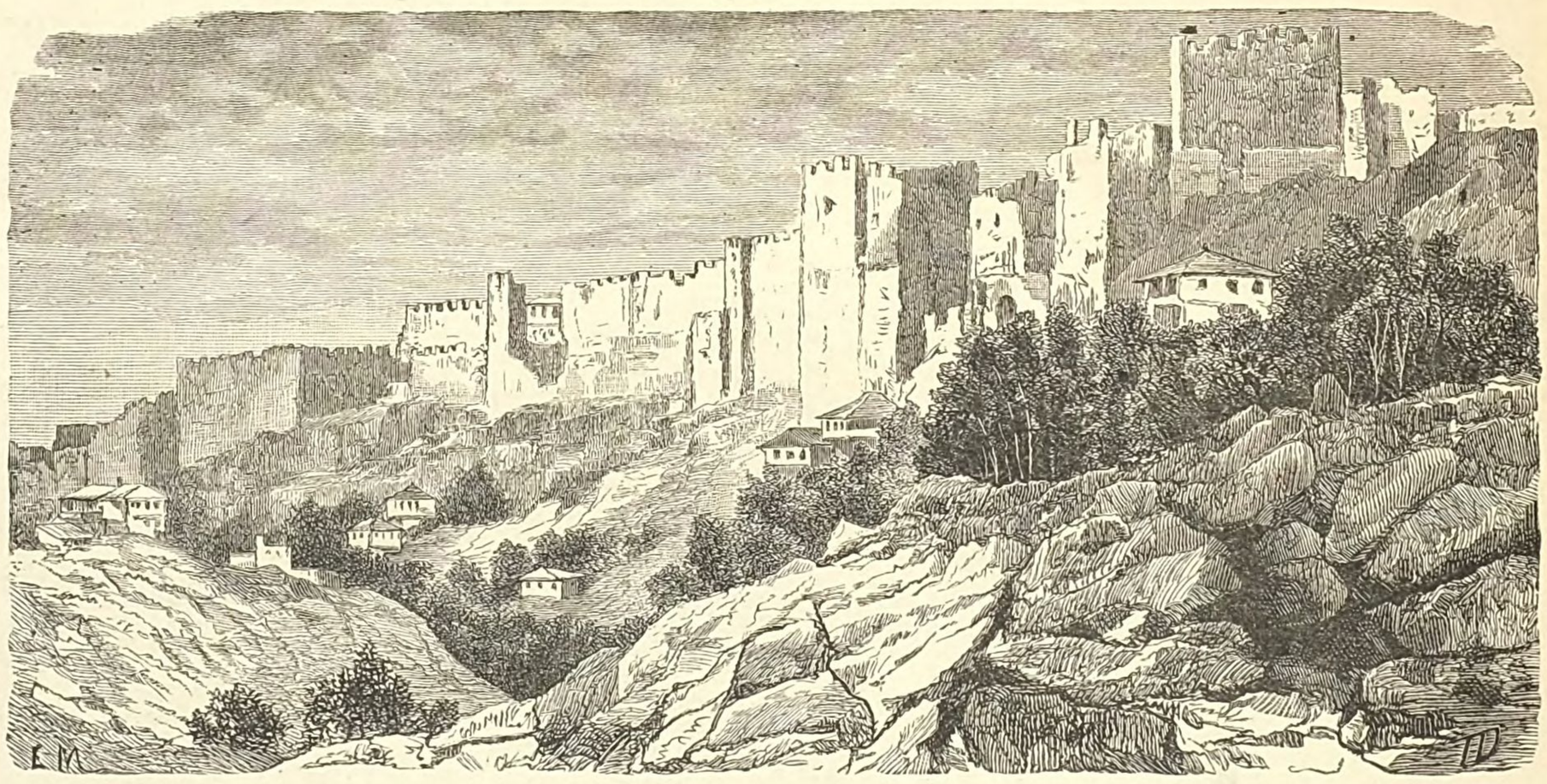


TREBIZOND. SEASHORE.

The illustration, page 140, represents one of the many cascades with which this region abounds. A special interest is attached to this place, since near here the Crusaders are believed to have encamped on their way to Palestine, and the ruins of a château in the immediate neighborhood are described by Albert of Aix, who calls it the Castle of Butrentum.

With these glimpses of the south of Asia Minor, we now turn to the northern provinces, beginning with Trebizond, which lies along the south-eastern shore of the Black Sea. There is now a weekly line of steamers from Constantinople to the city of Trebizond, and Western influences are largely at work here, effacing in some degree Oriental costumes and Oriental manners.

The city, built like an amphitheatre along the sea-shore, is extremely picturesque as we approach by water. There is a line of buildings of varied outline, all painted



Fortifications of Trebizond.

in bright colors, and behind them, rising and retreating up the hill, are others in equal variety, scattered among thick clumps of fruit-trees with dark-green foliage, while here and there a slender white minaret stands up clear and sharply cut against the blue background of the sky. The mosques themselves, about forty in number, are not very remarkable, and, except the Mosque of Saint Sophia, a little distance out of town, the only really interesting one is a transformed Byzantine church, of which the exterior is in part covered with mosaics.

The town divides itself into the Turkish and the Christian quarters. The former occupies the western half of Trebizond, and is shut in by a line of high walls, defended by solid towers. These walls have a rocky foundation, and beneath them are great ravines overgrown with luxuriant vegetation. The ivy climbs over the gates, and here and there hides from our sight part of the Greek inscription which tells of an earlier time, and a people long since passed away.

The Christian quarter is not very attractive, from an architectural point of view. Here, however, we find the principal bazaar, and after some little experience, learn what treasures may be discovered in it. The richest carpets of Persia, Khorassan, and Smyrna, the woollen and silk stuffs of Aleppo, Diarbekir, and Broussa, the finest filigree-work in silver, precious stones of great value, rare and curious weapons, ancient coins, may be bought — and sometimes at prices not too high — by him who has learned the craft and mystery of Oriental bargaining.

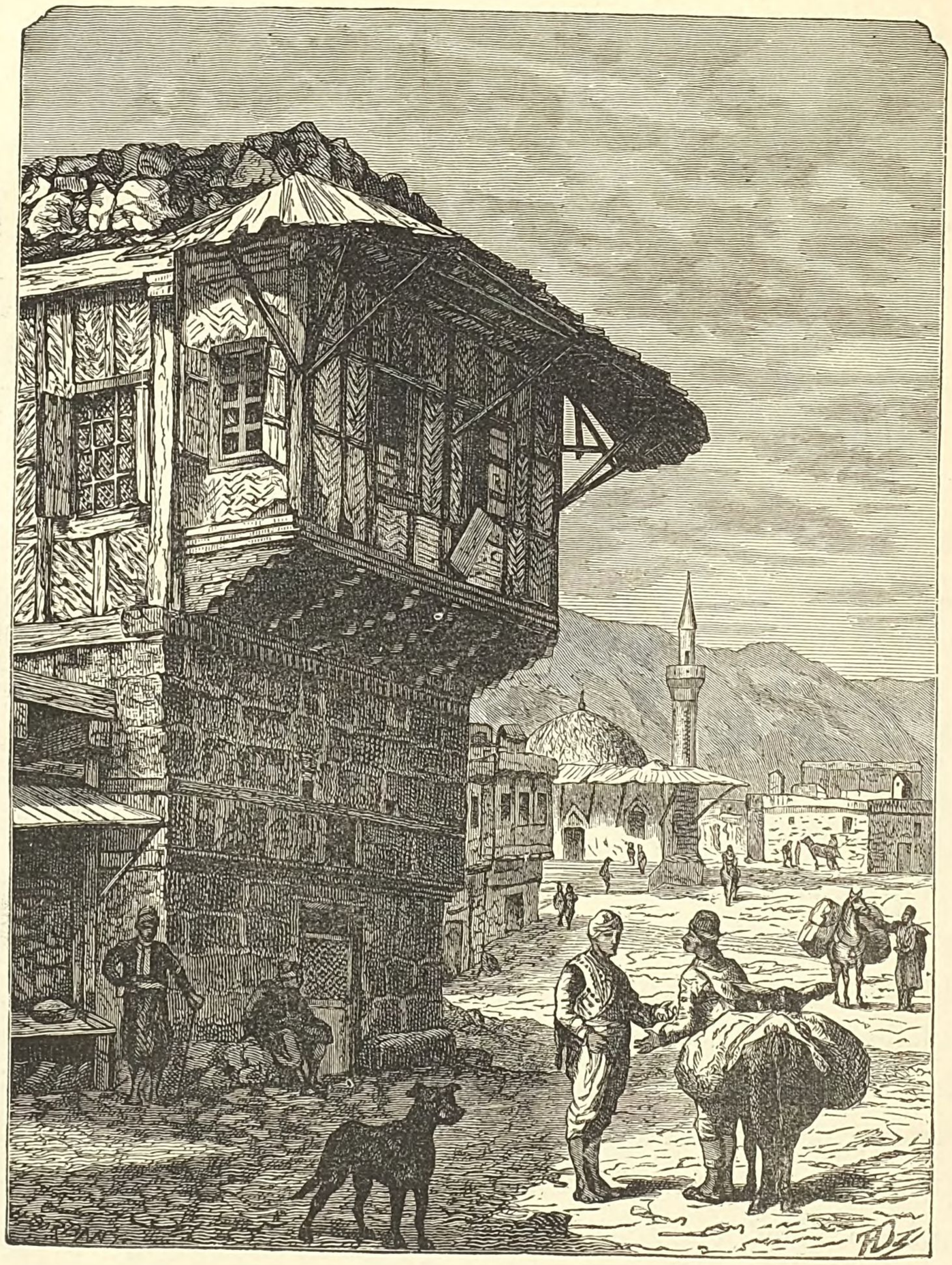
Passing through the bazaar, we emerge into a little open square by the shore, where, on market-days, one sees much that is amusing and characteristic. There, on a ruinous pier, said to have been constructed by the Genoese, the *caiques* and *sandals* of all the neighboring coast land their various merchandise. Boats from Platana and Surmineh bring loads of fruit and vegetables, wood and cereals. Others are taking on board the rude pottery made in such quantities at Trebizond. Others bring troops of peasants, whose costumes enliven the picture. The little square is all alive with a gay and bustling crowd.

So, too, is the bazaar itself, on certain days in the week, when the people of the neighboring mountains come down to sell their cattle and the produce of their gardens. All that they can they bring upon their shoulders, but the heavier burdens must be loaded upon donkeys and horses, or in carts drawn by oxen and buffaloes. This produce they exchange for woollen stuffs, fire-arms, and various small articles of daily use. Of all these scenes, the most curious is that when we encounter a long caravan of camels, horses, or mules, arriving from the interior with bales of cotton to be deposited in some *khan*, or in the storehouse of some rich merchant. The tumult and confusion, especially the noise, is indescribable ; the cries of the drivers mingle with the shrieks of the passers-by, half crushed in the narrow lanes, and of the tradesmen whose awnings are carried away on the top of some animal's load ; and, over all, the angry growl of the camels, a sound most peculiar and distressing.

The population of Trebizond is estimated at forty thousand inhabitants, and consists of Turks, Persians, Armenians of the Gregorian and Latin confessions, Orthodox Greeks, twenty or more European families, and a floating population of muleteers, *hamals* or Turkish porters, and Kurds. We may say that representatives of every Oriental people are found here, and each man in his national costume. The Turks are mostly shopkeepers, fishermen, and public officials. The two former classes are faithful observers of the law of Mahomet; the latter have gone astray from the traditions of their fathers : they no longer wear the old costume, they drink brandy to intoxication, and they have lost the politeness and good-humor which distinguish the true Mussulman.

The Persians are merchants on a larger scale, and also very clever artisans; their natural subtilty and finesse, their talent for business and refinement of manners, bring

them to fortune rapidly. They are superstitious and practise minutely the details of their religion. Followers of Ali, they have many quarrels with the Turks, who accept the authority of Omar; more polite than the Turks with strangers, they yet allow themselves in conversation to extol their own country above all the world; wherever they go they preserve their national costume, of silk or some rougher material, according to the class to which each man belongs, but always made in the same fashion.

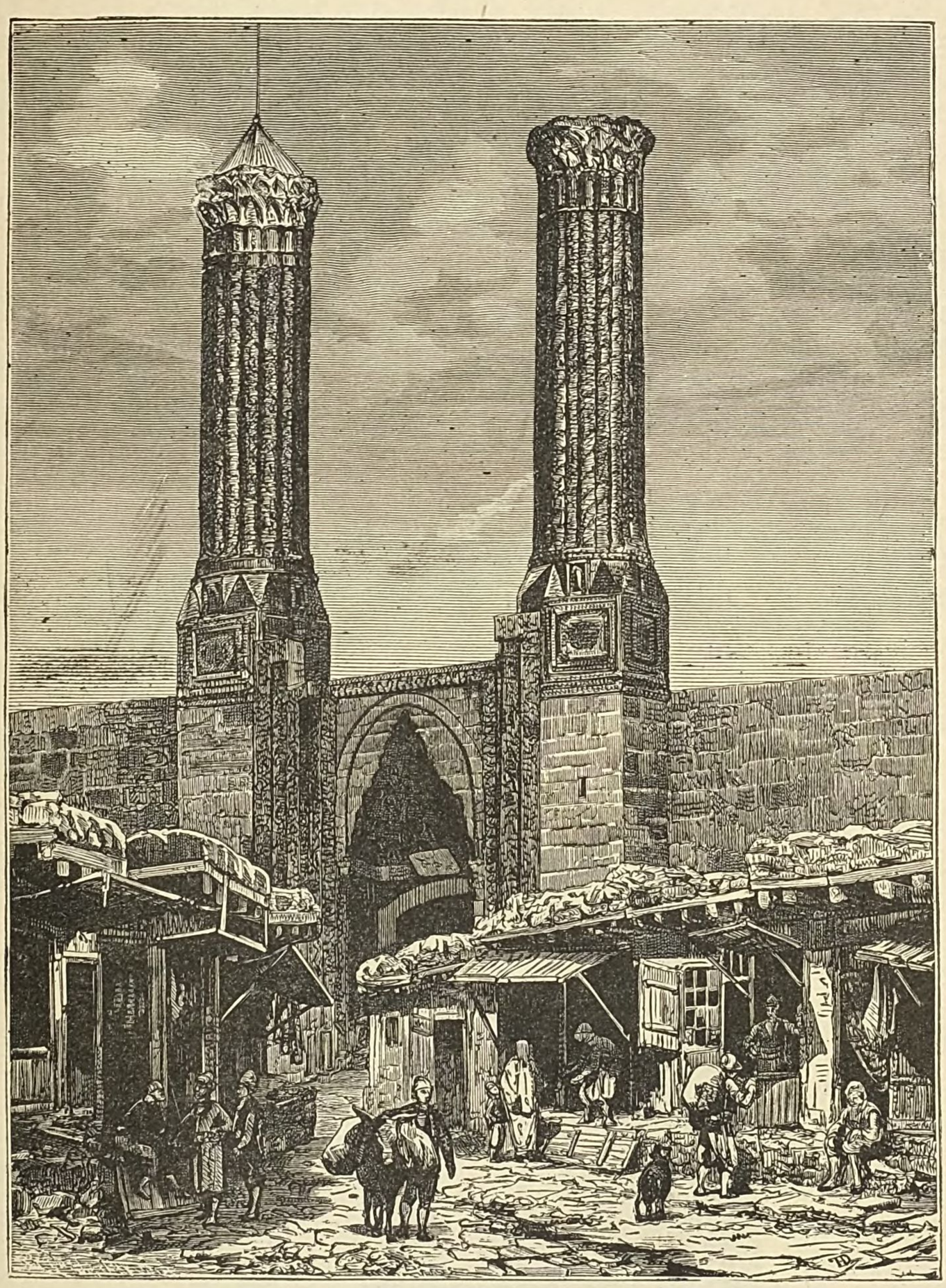


Erzeroum. Street Scene.

The Armenians are gentle and peaceable; their manners retain a stamp of the patriarchal days, the children never being allowed to sit in the presence of their parents, and young girls waiting at table upon their relations and the guests of the house. The Armenians, and also the Greek population, are far more attached to Russia than to the Porte; it would seem that this preference must be founded on

religious sympathy, since they could in no way obtain advantage from a change of masters.

From Trebizond, a mountain journey — whose duration varies from seven to twelve days, according to the weather and the time of year — brings us to Erzeroum. At eight hours' distance from the city we see it clearly, — so pure is the atmosphere of this plateau, — a strange and characteristic silhouette done in sepia against the light-



Erzeroum. Tchifté Minaret.

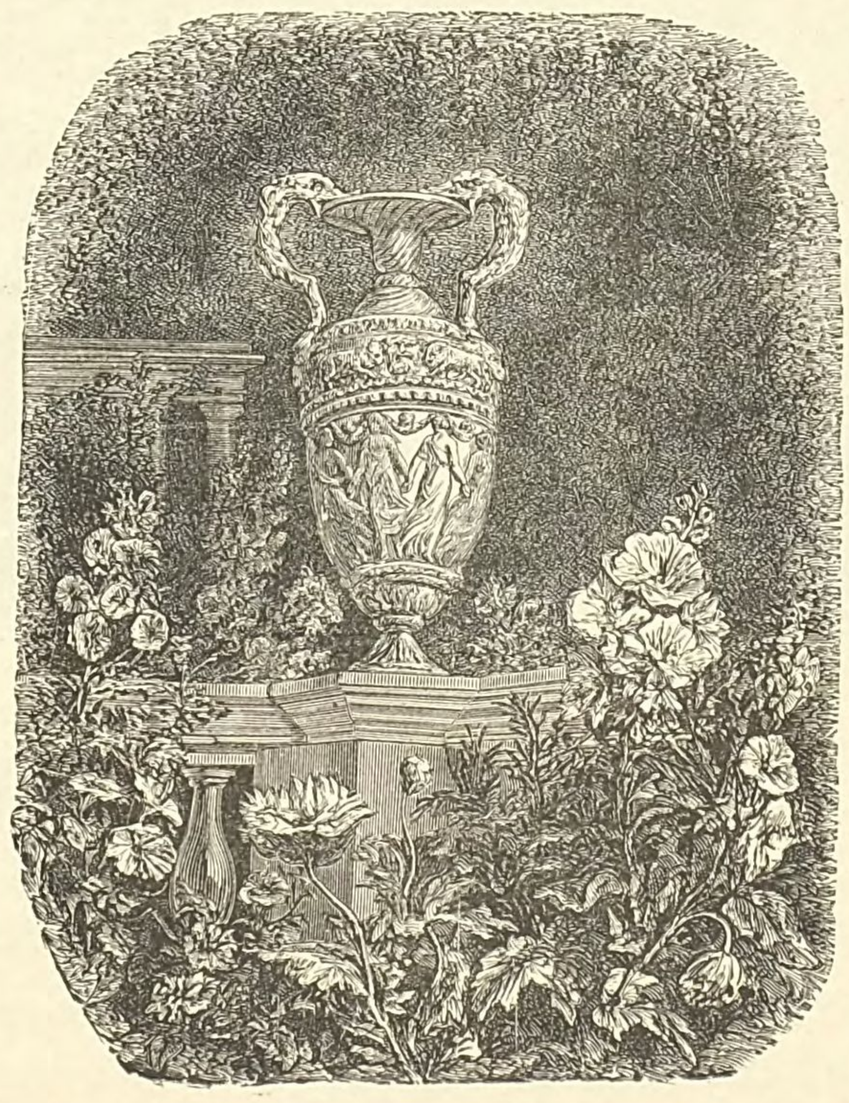
gray background of the hills. From these hills many rivulets run down, and make their way through the city in every direction, thus requiring a great number of bridges, and giving a marked peculiarity to the town. Furthermore, Erzeroum is eminently Oriental in its appearance; the streets in the Mohammedan part of the city are lined with walls of grayish tint, pierced by small and infrequent apertures, which

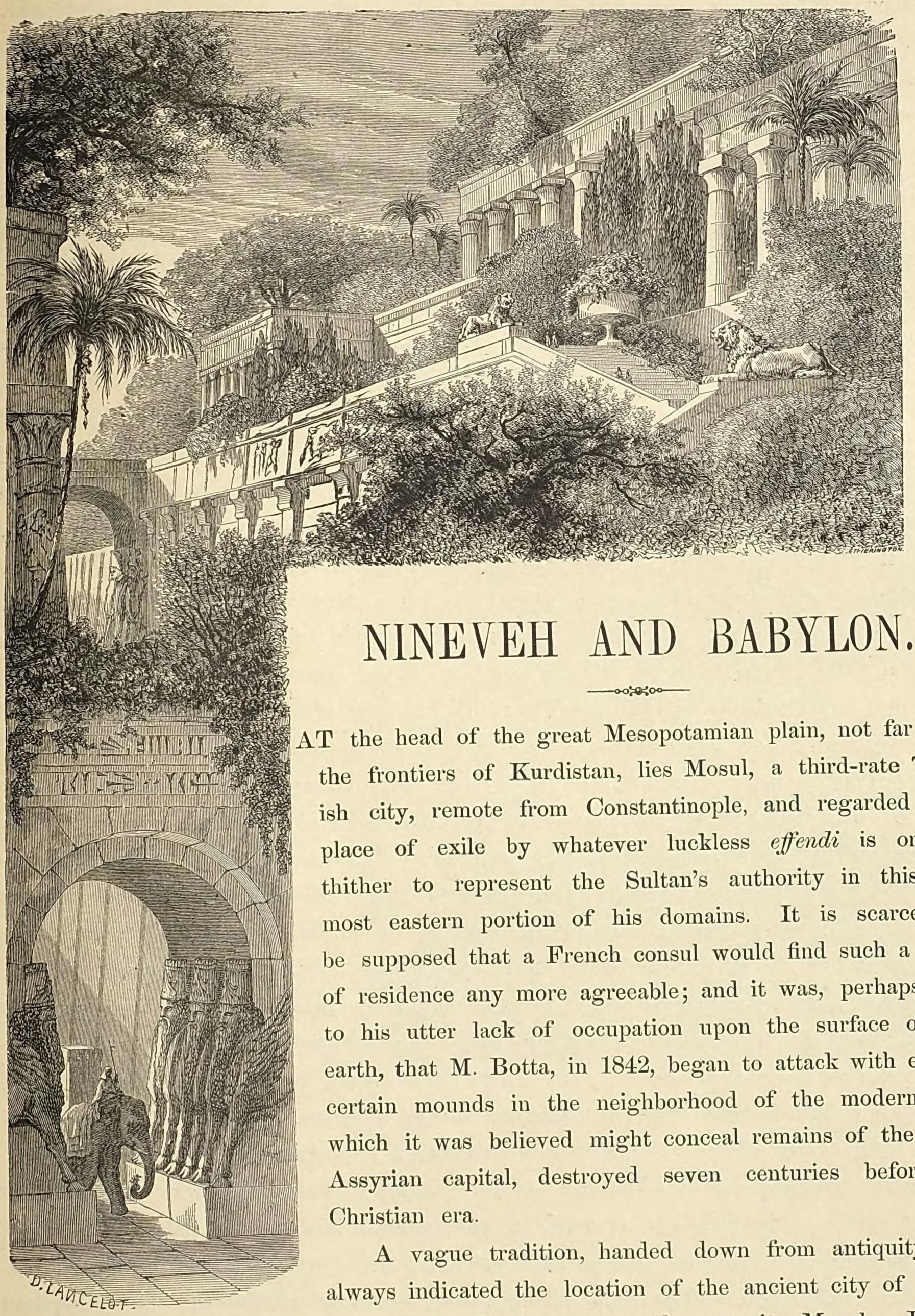
serve as windows. In the Christian quarter, many houses have a second story projecting over the street, supported by posts, sometimes ornamented with carvings; and the roof forms a sort of awning, sheltering it all from the rain and sun.

Most of the houses, especially those which have but a single story, are lighted only by an opening in the roof, over which is placed a pyramid of oiled paper, which lets in the daylight, but keeps out the rain. The flat roofs themselves, covered with a thick layer of earth, become in spring real fields where sheep and goats are pastured, and, later in the season, are used as drying-places for fuel. In Erzeroum there are no paved streets; consequently, the dust in summer is intolerable, and in winter they are nothing better than quagmires.

The mosques are very numerous; one, the Ouloud-Djami, situated on the highest ground in the city, and now used as an arsenal and powder-house, is really interesting. Its chief gate is that of the Tchifté Minaret, represented on page 145. The mosque itself seems to be of Arab architecture, but probably its builders were Persian workmen; for, beside its ornamentation of geometrical designs, there are figures of animals, serpents' heads, and a double-headed eagle on a cartouche in relief, near the minaret; the gate itself is surmounted by two towers of varnished brick, and the base is decorated with a mosaic of blue, green, and red *faïence*.

With Erzeroum we take our leave of the north-eastern part of Asia Minor, crossing the country to Mosul, whence we have access to that land of mystery and eld, "far-off Chaldea, and Babylon the Great."





NINEVEH AND BABYLON.

AT the head of the great Mesopotamian plain, not far from the frontiers of Kurdistan, lies Mosul, a third-rate Turkish city, remote from Constantinople, and regarded as a place of exile by whatever luckless *effendi* is ordered thither to represent the Sultan's authority in this, the most eastern portion of his domains. It is scarcely to be supposed that a French consul would find such a place of residence any more agreeable; and it was, perhaps, due to his utter lack of occupation upon the surface of the earth, that M. Botta, in 1842, began to attack with energy certain mounds in the neighborhood of the modern city, which it was believed might conceal remains of the great Assyrian capital, destroyed seven centuries before the Christian era.

A vague tradition, handed down from antiquity, has always indicated the location of the ancient city of Ninus at a point on the eastern shore of the Tigris, very nearly opposite Mosul. Jonah's Tomb, a Mohammedan structure standing on a hill, and perpetuating the Biblical mention of that prophet's visit, is another form of the same tradition. And yet nothing in the

appearance of the place suggested the former existence of a great capital: there were no ruins, no vestiges of ancient buildings; there was nothing but an arid plain, varied by low hillocks here and there. Such is the impression all early travellers give us of the spot.

No one of these travellers was in a position to dig into these hillocks, in search of possible hidden treasure. Mr. James Rich, fifty years ago the British resident at Bagdad, was, up to 1842, the only person who had made any investigations, and his efforts resulted merely in obtaining some stones and bricks bearing cuneiform inscriptions, which he bought from the Arabs and sent home, where they formed the nucleus of the Assyrian Collection of the British Museum. This, however, was sufficient to excite public attention in England and in France, and shortly after his arrival in Mosul, M. Botta commenced his explorations, by digging into a hillock about fifteen minutes distant from the river-bank. The results obtained were not very satisfactory; but a peasant, who saw the laborers at work, besought them to come to his village, ten miles distant towards the north-east, where, he maintained, much better and more abundant fragments of ancient sculpture could be found. With a good deal of distrust in these promises, M. Botta sent three or four of his men to the place designated, the village of Khorsabad, since become so famous. It was merely a little group of some fifty houses, on a low eminence forty feet above the plain, and inhabited by Kurds crossed with Arab blood. The very shape of this hillock proved it artificial, and the discovery of bricks with cuneiform inscriptions, and of great hewn stones on a level with the ground, and now serving as pavement to some of the houses, at once confirmed the hopes of the explorers. M. Botta soon arrived in person, and set all his men at work.

Such is the point of departure of the magnificent discoveries which have taken so important a place in the scientific history of our epoch.

A few hours' work brought to light a head, — a superb head, with straight, pure profile, — an unmistakable antique. One may fancy the excitement of the moment, as the consul asked himself, "Is this all, or is this but the beginning?" They plied their picks vigorously; the stone grew larger and larger, a body was added to the head; other figures were brought to light; it was a series of bas-reliefs; it was the wall of some vast edifice! One hall after another was excavated, the walls all covered with carvings and inscriptions, — with hunting scenes and war scenes, with colossal symbolic figures, — in a word, it was nothing less than a palace, — a great royal habitation. Carbonized beams and blackened walls betrayed that the flames had done their work here. The fury of that war which overthrew the last Assyrian dynasty, and the devastating hand of the victorious enemy, had left their traces everywhere.

By a fortunate chance, the village people of Khorsabad were quite willing to

sell out and move down into the plain, nearer the springs from which they obtain their supply of water; and the difficulty of finding laborers who would brave the terrors of this under-world, with its demon sculpture so frightful to the Mussulman, was met by another equally fortuitous circumstance. Certain mountaineers of Christian faith, persecuted and threatened with destruction by neighboring Kurds, had but lately come in multitudes to seek assistance in Mosul. These men M. Botta found ready and eager to accept his pay, and by their hands the work was carried on.

Since this beginning, the published discoveries of Rawlinson and Layard have brought to our very doors the marvels of Assyrian art and architecture. The mysterious cuneiform inscriptions have been read, and we have the message which those early people meant for us when they left their history "graven in the rock forever."

No single illustration of the art of this early people is more truly typical than the Winged Bull, which recurs everywhere, especially guarding on either side the great doors of the palace.

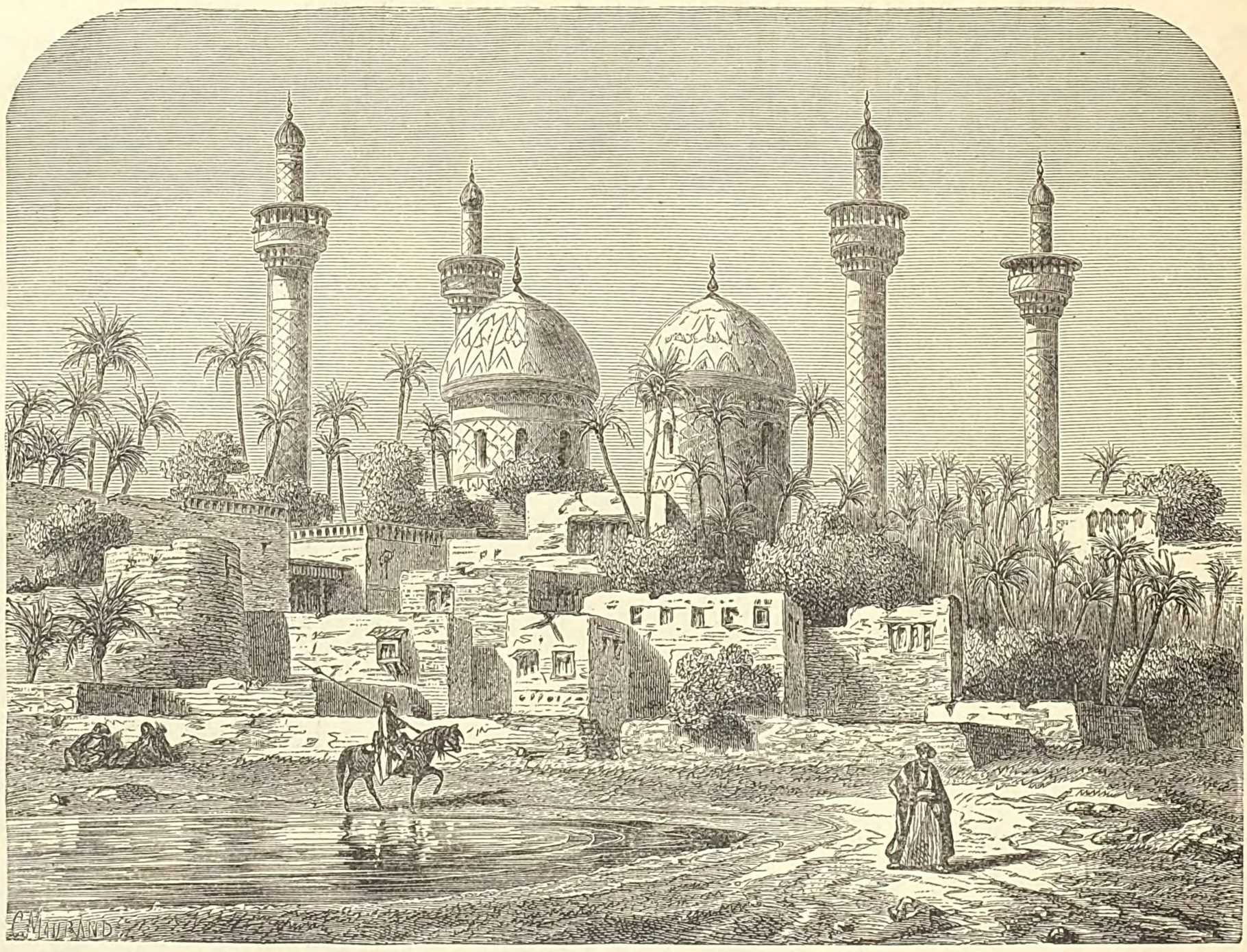
These figures are sometimes eighteen feet high, and executed in high relief, having a projection of more than three feet. The aspect of this minotaur, his haughty neck surmounted by a human head wearing a tiara, has a strange grandeur about it, and we cannot but feel a profound admiration for the genius which prompted this conception, at once barbarous and noble, in which the strength of beast and bird is united and made tributary to the dominant human soul.

Winged Bull from Nineveh.

Coupled naturally in our thought with Nineveh, the great city of the Tigris, is Babylon, mistress of the Euphrates. On the way from Nineveh to Babylon lies Bagdad, and we linger for a few words about this city of the Kalifs, ancient from our point of view, but only the child of yesterday in comparison with its great neighbors of the primeval world.

A certain disappointment, however, awaits the traveller who enters Bagdad, his

imagination filled with visions borrowed from the "Arabian Nights" and the traditions of Haroun-al-Raschid. The eleven centuries which have passed since the city was founded, the innumerable wars, the invasions of rebel Turkomans, the inundations of the Tigris, the storms from the desert,— all have united in the destruction of those splendid buildings with which Arab civilization and an enthusiastic faith once endowed this superb queen of the east. But the traveller who relinquishes his illusions, and contents himself with exploring the modern city, will find much to gratify his curiosity, and even to excite his admiration. The Arabian river, the blue sky of Mesopotamia, which reflects its azure in the *faïence* of the cupolas, a few mosques, the



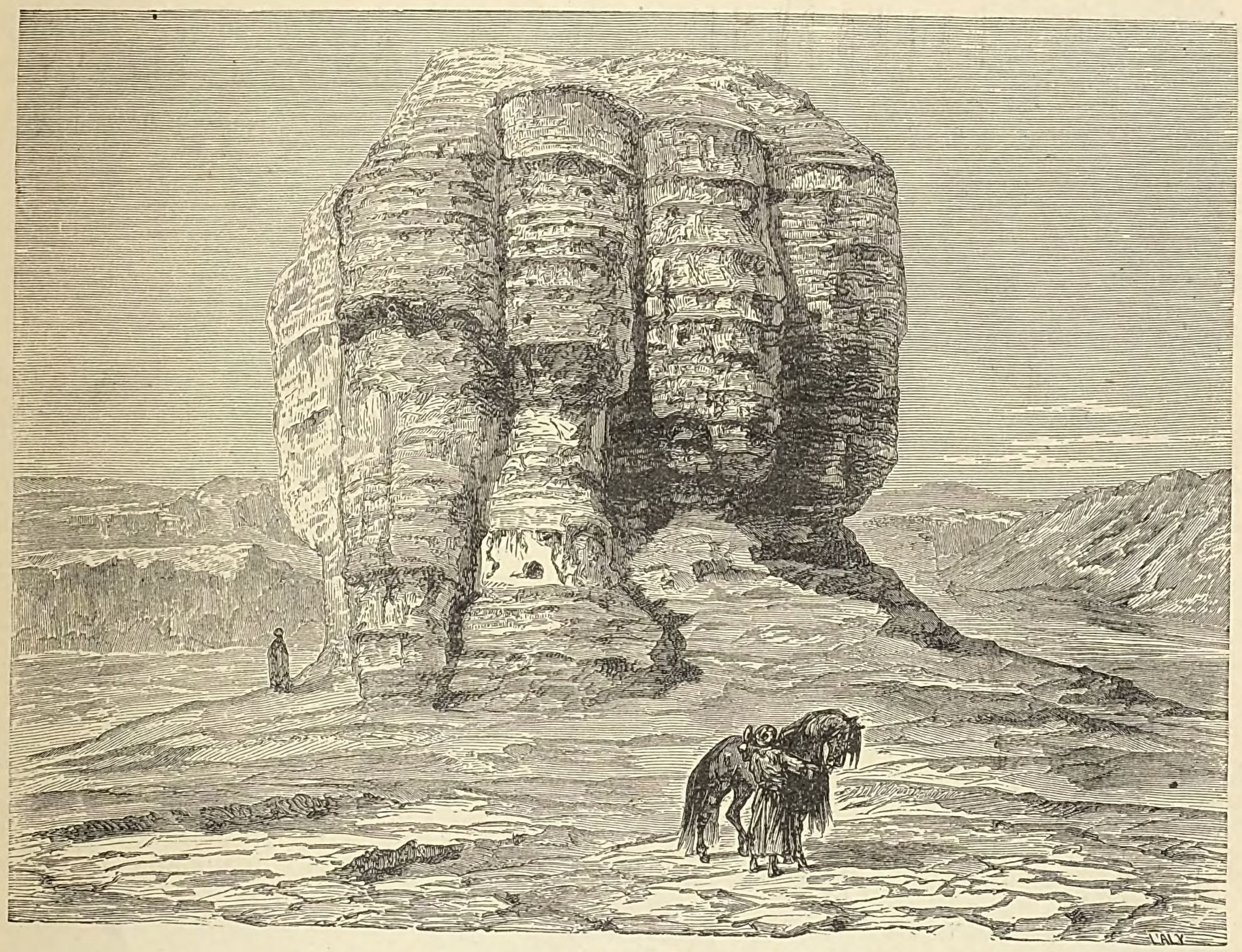
Mosque of Iman-Moussa.

picturesque bazaars, the crowd of Asiatic types of every variety, will offer him pic tures forever to be retained in memory.

Bagdad has the aspect of a great city, its minarets gleaming from afar across the desert in which it lies like an oasis. Upon its eastern side it is defended by a vast belt of walls in good condition, protected by bastions and a wide moat, easily filled from the Tigris. This wall at its two extremities meets the river, which is the city's western defence, and it is from this side that Bagdad is seen to the best advantage. The Pacha's palace, the mosques, *cafés*, houses, and gardens, which line the bank and are reflected in the water, form a beautiful picture. Behind this water

front are grouped the diverse quarters of the city, occupying — but by no means filling with houses — the vast space between the river and the walls. At the east and south are wide desolate commons, where camels feed, and where only some rare heap of ruins suggests that the place is yet part and parcel of a great city. By the extent of its fortifications, we see plainly that Bagdad was once incomparably more important than it now is. The actual present population does not exceed fifty thousand, and of these but part are Mussulman, a large number being Jews and Christians of the various communions existing in the East.

Across the river is a comparatively new quarter, of which the population differs widely from that within the city proper. It consists of Bedouin Arabs, temporarily



Akar-Kuf.

lodged there, and of Persians, who have a preference for the more independent life of the suburbs. A bridge of boats unites it with the city, across which are passing all the time Bedouin caravans, horsemen, laden camels, or flocks of sheep driven to market.

On this side of the Tigris rises, amid the palm-trees, the Mosque of Iman-Moussa (page 150), with its four graceful minarets and its two cupolas, glittering with enamel and arabesques. Around this great mosque are grouped the houses of the priests, making a little village.

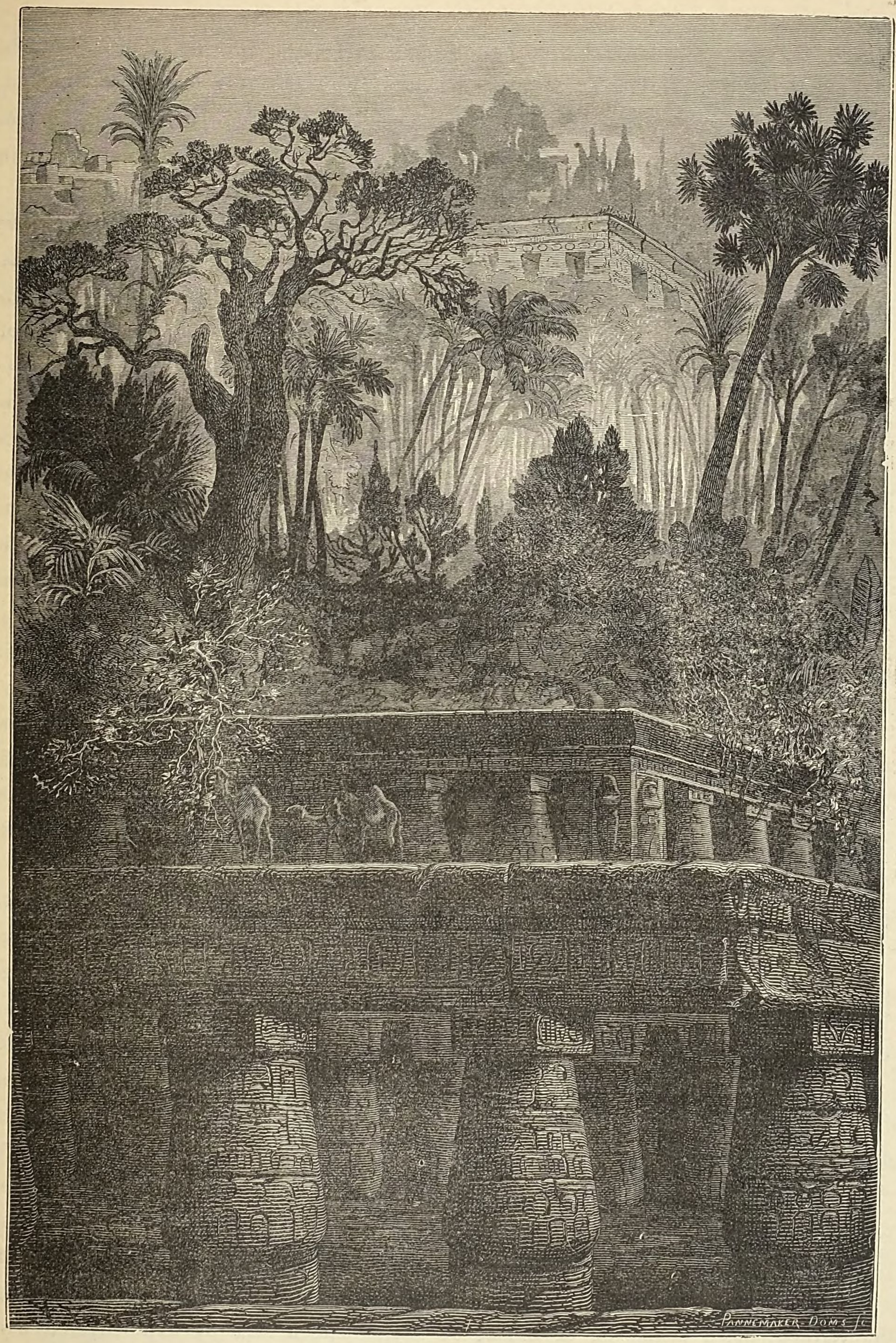
About four hours' ride from Bagdad westward lies a very curious and ancient ruin, known as the Tower of Akar-Kuf, to which the traveller may well devote a day. The adjacent country is full of low hillocks and dried-up canals; a lake, represented on the maps as lying at a little distance from Akar-Kuf, is also dry, and its bed completely filled with a little, low, red plant, which gives a weird and sinister air to the scene.

The ruin itself (page 151) is a square solid mass built of bricks, having still a height of one hundred and twenty-eight feet; it has been attacked on two of its sides, with the intention of penetrating it, either through curiosity or in the search for treasure. The bricks of which the tower is made are not burnt, but only hardened in the sun. They are placed flat, one upon another, and cemented with the same earth of which they are made. Eight or ten rows of them form a layer two feet or two and a half thick; then follows a layer of earth and a layer of straw, and then the bricks recommence. Square holes exist here and there, which may have served for the support of scaffoldings, and perhaps also to facilitate the drying of the mass, for the apertures evidently penetrate far into the interior. The layers of straw, which project beyond the bricks, can be seen at a distance: they are in perfect preservation, and have resisted the action of time better than the hardest wood.

A few bricks have been found at Akar-Kuf bearing inscriptions, from which we judge this curious structure to have been built as a sort of votive offering to some divinity otherwise unknown to us, and by some king concerning whom history is silent.

It is worth remark, however, that the Arabs call the place "Nimrod's Hill;" and we are led to notice how Assyria and Babylonia are filled with the name of Nimrod, as that of Abraham prevails in Mesopotamia, of Cæsar in ancient France, of Trajan in the valley of the Danube, and of Alexander in the remote East. Whence comes this strange popularity of a man who, perhaps, may have founded some rude form of a state, but who appears in history only as "a mighty hunter before the Lord"? We must remember that the mighty hunter of those early days was the great defender and civilizer; when the earth belonged rather to beasts than to men, and the terror of those monsters of sea and land lay upon all men's souls, he who brought destruction to the python and the crocodile, to the tiger, the leopard, and the lion, was the universal benefactor, the man of all others to be honored by his fellows and commemorated by posterity.

And now, at last, we have before us Babylon the Great, its site some fifty miles south of Bagdad. To reach it we traverse a desolate steppe which was once the fertile plain of Babylonia, producing, in the Persian days, one third of the whole agricultural revenue of that great empire. Chaldæan industry had easily solved the problem, — how to make up for the natural aridity of a plain where it never rains, and there are no springs nor any running water save its three great rivers. From these



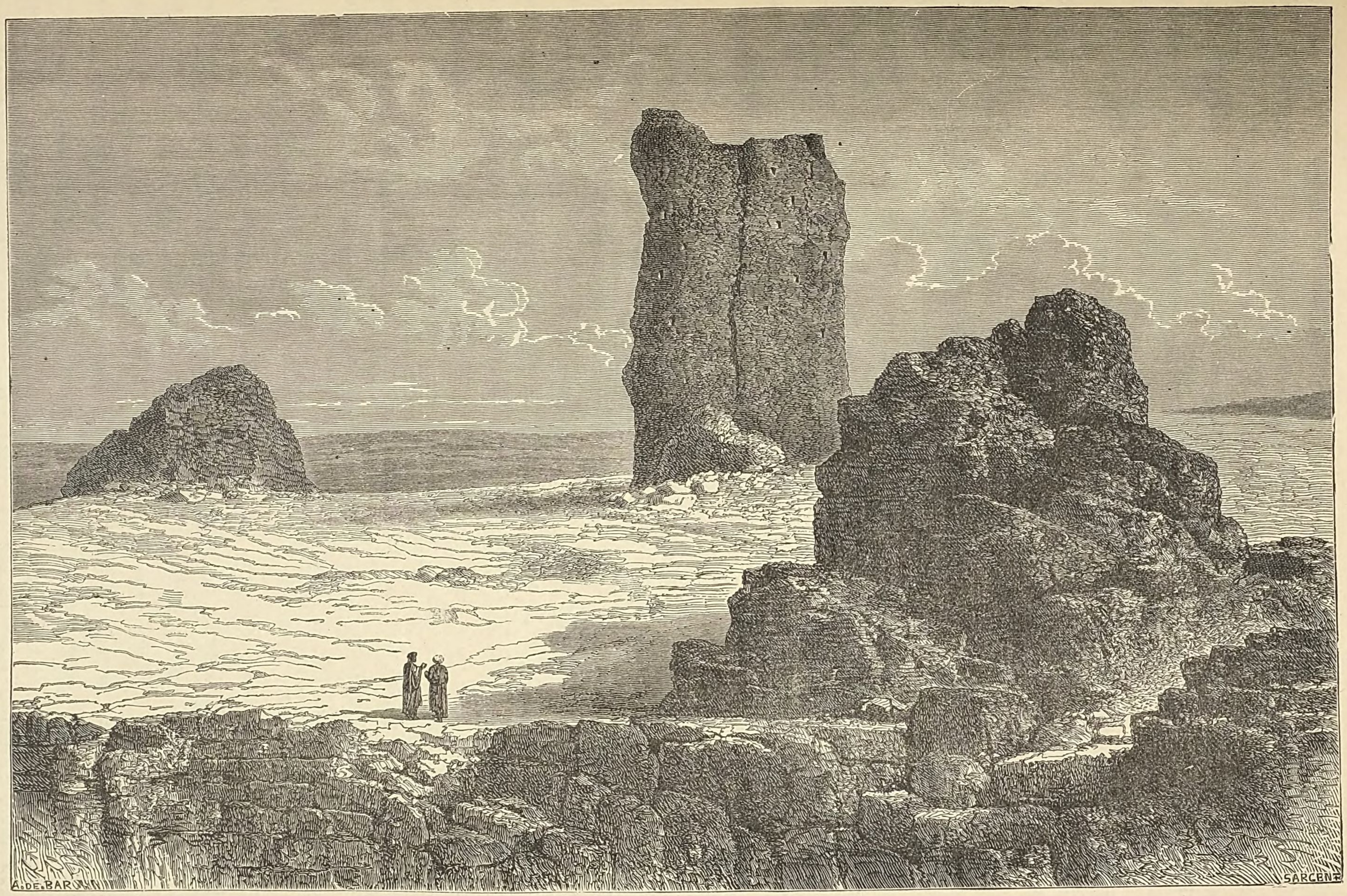
HANGING GARDENS OF BABYLON

rivers were cut great canals, and from the canals a perfect network of smaller channels, reticulating the whole surface of the ground, like the veins of a leaf. All this has long since fallen into neglect. "Where the Turk has passed, the grass no longer grows," says the Eastern proverb; and even the annual overflow of the Euphrates now only creates here a pestilential marsh.

It was about eight o'clock in the morning of our third day from Bagdad when we came in sight of the palm-trees of the Khan Mehaouil, where begin the famous ruins, and, as we approached, memory supplied the details of the ancient city. It was a perfect square, not far from fifty miles in circuit. The wall was eighty feet high, and of the same thickness, and surmounted by two rows of turrets, two hundred and fifty in number, facing each other, and leaving between them space for the passage of a four-horse chariot. The wall was pierced with a hundred gates of brass, and outside of it was a wide deep moat filled with water. The quadrangular plan of the exterior was carried out within, the streets cutting each other at right angles and abutting at the gates, and at other entrances pierced in the quays which followed the windings of the river for a length of twenty-one miles. All this immense space within the walls was not, however, occupied with buildings, the houses, three or four stories high, being separated from each other by extensive gardens, and large open spaces being left within the city for the cultivation of grain. Thus, in general terms, we may represent to ourselves this queen of the East in the time of her glory; and what strikes us in the description the ancients have left us is a combination of the useful with the magnificent, which we find nowhere else in the same degree. All their immense works, ramparts, canals, quays, bridges, and artificial lakes, are, above all, works of public utility.

From this statement we except the famous Hanging Gardens, which are believed to have been "a labor of love." Some Babylonian king, history tells us, — but concerning his name we have no information, — had a favorite Persian sultana, who forever regretted, in the level and monotonous land of Chaldæa, the varied scenery of her native home. To combat this nostalgia, the royal lover constructed upon the top of the citadel a great garden wherein he gathered all the floral marvels of his vast empire. We borrow the description of Diodorus Siculus, the only author who speaks minutely of this wonder of the world.

"This garden, square in form, had a length of four hundred feet on each side. It was reached by steps, rising upon terraces like an amphitheatre, these terraces being supported by pillars, of which the tallest supported the garden itself. The walls were twenty-two feet thick, and the columns stood ten feet apart. The platforms of the terraces were composed of blocks of stone, sixteen feet by four, covered with a layer of asphaltum and rushes, then a double layer of cemented bricks, and finally with sheets of lead, to prevent the water from filtering through. Upon all this was



BIRS NIMROUD.

laid a depth of earth sufficient to receive the roots of the largest trees; and this artificial soil was then filled with trees of the rarest and most beautiful kinds. The columns, rising gradually, allowed the light to penetrate through the interspaces, and gave access to the royal apartments, numerous and beautifully decorated. One of these columns was hollow from summit to base, and contained hydraulic contrivances for bringing up a vast amount of water from the river." Strabo adds that the pillars sustaining the gardens were hollow blocks of masonry, destined to receive the roots of the larger trees; and Quintus Curtius speaks of some of these trees as being fifty feet high and producing fruit, just as if they were growing in the ground.

Meanwhile, from the flat roof of the *khan* we get our first look at the real scene as it lies before the traveller of to-day. It is a wide and nearly level plain, furrowed by traces of ancient canals, a few low masses of ruins in the distance, and two isolated groups of palm-trees far away upon the horizon. No words can express the mute and desolate grandeur of this solitude, where sleeps the city which was in its time the capital of the civilized world. Vastly more impressive than Nineveh, it brings to mind, in literal fulfilment, the solemn maledictions of the Prophet: "Thou hast spoken against this place to cut it off, that none shall remain in it, neither man nor beast, but that it shall be desolate forever."

The ancient city lay on both sides of the river, and Queen Nitocris constructed a bridge, we are told, uniting the two sides. On the western bank there remains but one conspicuous ruin; that is, however, of so much importance that we select it as the typical illustration of Babylon as it is to-day. It is called *Birs Nimroud*, or Nimrod's Tower, and may well be as ancient as the mighty hunter whose name it bears. It stands upon an artificial elevation nearly two hundred feet in height and six hundred long. At base this mass has the form of a rectangle. From its summit, and nearly in the centre, rises a massive brick tower or column. At regular intervals, symmetrically arranged, are openings which traverse the solid mass of this gigantic column, but for what purpose they were left it is impossible to conjecture. The column itself is about thirty feet in height.

From one disaster to another Babylon has sunk, till it has become but a name, — a memory. Where are now its temples, its walls, its hanging gardens, its palaces? The traveller in vain seeks a vestige of them; nothing guides him to any discovery; not even their ruins exist; and in the midst of the far-stretching desert, across which once glittered the brilliant city of Semiramis, it is but by accident that he detects the few shapeless mounds which indicate the place where stood this capital of the early world. The great Euphrates still flows on its lordly way to the sea, but the magnificent quays so much admired by Herodotus have vanished utterly, and in their stead there is but a little hamlet of Arab cottages, which does not even seek in its name to perpetuate the memory of Babylon.

PERSIA.

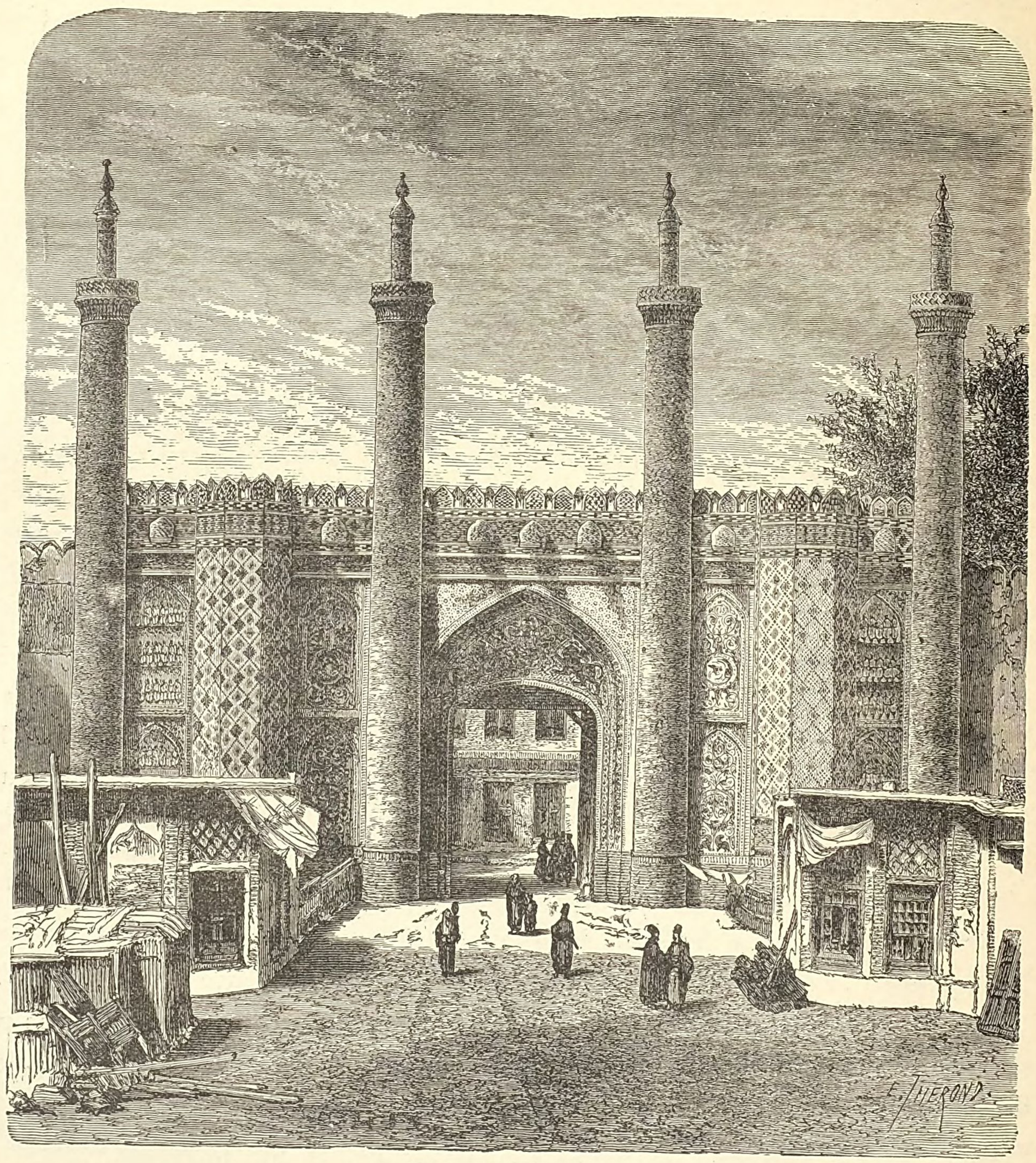
TEHERAN, the modern capital of Persia, stands in the midst of a wide, stony, barren plain, bordered on the east and west by ridges of sterile hills, and on the north by the vast chain of the Alboorz Mountains. The city lies really lower than the plain around it, being built in a natural hollow of the ground, the most ineligible site, it would seem, in the whole neighborhood. Its appearance from without is in no way prepossessing, nothing of it being visible but the wall of unburnt brick cemented with mud, defended by small round towers placed at regular intervals, and by a dry moat. This wall has six gates of no architectural importance, with the exception of the southern or New Gate, represented on page 158, and this rather showy than beautiful. It is built of glazed bricks, with legendary figures in mosaic over the entrance, and four round towers, covered with enamelled tiles, rising to a considerable height above the level of the wall.

Nor is the interior of the city more attractive. The houses are poor and shabby and the streets narrow, such as are not bazaars presenting nothing to the view but the dead wall of the houses on either side, and the open drain through the centre of the roadway. The bazaars, which are very numerous and thronged by a motley population, are roofed in, and lighted from above by a series of small glass domes.

The chief Mosque has a handsome enamelled façade, and a gilt-topped dome. Caravansaries are numerous, the city being the great thoroughfare of travel from west to east across Northern Persia.

Teheran appears to have been a place of but little importance until the middle of the last century, at which time the founder of the present dynasty removed his capital thither from Ispahan, with the intention of being nearer his own people, a tribe occupying a region on the Caspian shore.

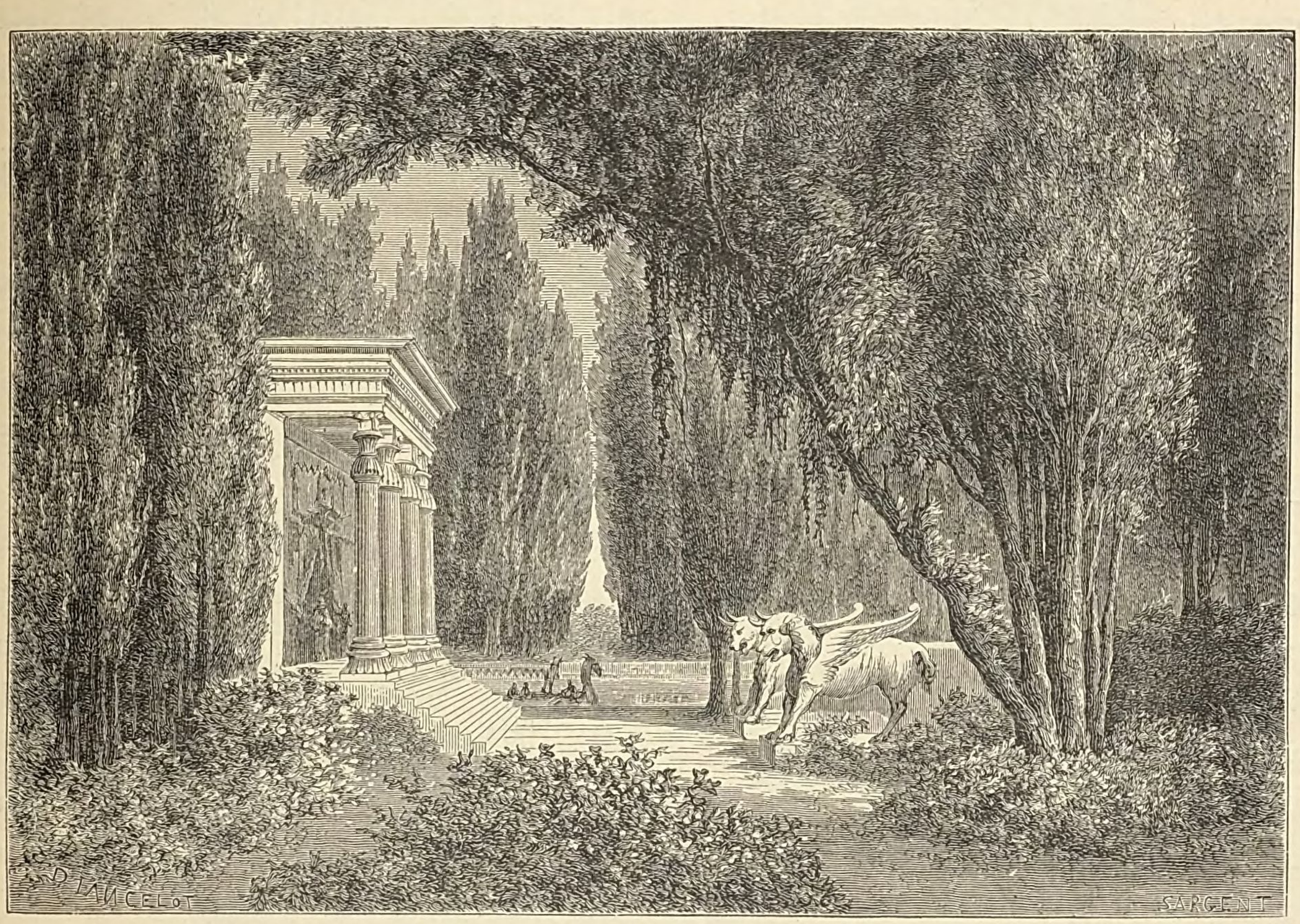
South from Teheran, and about half-way between the Caspian Sea and the Persian Gulf, lies Ispahan, more in ruins than any other of the cities of Persia. From



Gate of Teheran.

the six or seven hundred thousand inhabitants which it had in the seventeenth century, it is now reduced to fifty or sixty thousand, and large sections of the town are filled with crumbling heaps that once were lofty structures. Everything has happened to this city, since the period that put a limit to its grandeur. To be stormed by an Afghan army is assuredly a calamity of the first order; and to traverse all the phases of anarchy and civil war, is scarcely calculated to restore prosperity. For all this, Ispahan has yet some marvellously beautiful spots within its walls, and none more enchanting than the Shah's Garden, represented on page 159. Earlier travellers

describe the magnificent avenues of plane-trees of this garden, which, it must be owned, have suffered much; but there are still noble rows of this superb tree left, making a *boulevard* bordered by buildings and sculptured figures worthy of the trees, and intercepted at regular intervals by great fountains whence avenues and paths lead off in every direction. These avenues are paved in the centre, and, according to custom in Persian gardens, are raised about a foot above the surrounding ground, which is covered with great shrubs and rare plants. In no way is one more clearly shown that this magnificence is but the shadow of the past than in noticing the profound solitude of all this beautiful place, which the actual population has entirely



The Shah's Garden.

deserted, and which, indeed, it could not fill. Then, the water in the ponds is stagnant which formerly was fresh and sparkling, and where the garden-beds used to be, wild plants grow luxuriantly; worst of all, the pavement of the avenues is mostly broken and destroyed. But still, notwithstanding all its desolation, there is much grandeur and elegance in these remains of the Tchéhar-Bagh, and of the Garden of the Shah.

From Teheran, the great caravan route leads across the country, nearly due east, to Mashhad, the sacred city, where it is the dearest wish of the good Persian Mussulman to be buried, if so be his friends can afford the money to buy him a burial-place in it, and the time to convey his remains thither.

Between Teheran and Mashhad the most important town is Semnoon, a place of

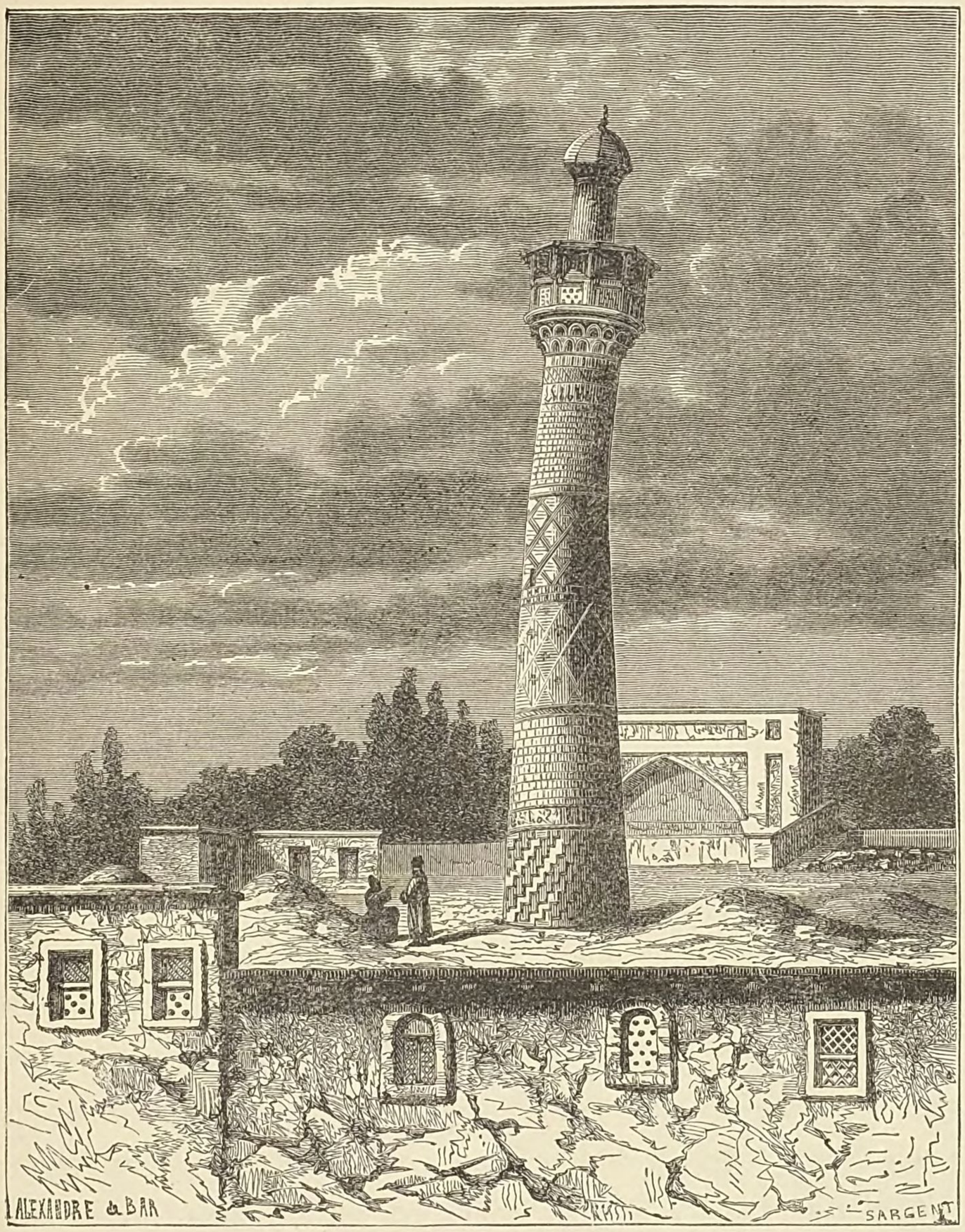
considerable antiquity, and in many respects attractive to the traveller. There is a curious style of dwelling-houses in this town, large and lofty, constructed, it is true, only of sun-dried bricks and mud, but in castellated form, with loopholes, bastions, and towers, evidently designed for defence. They must have been built many centuries ago, the well-tempered and tenacious clay used for these purposes remaining long uninjured in the dry Persian atmosphere; and there they stand, lofty and solid as the day they were erected, overtopping the city, while the ancient families who once occupied them have long since perished, leaving not even a trace of their history. On the other hand, much of the ground in Semnoon is honeycombed with caves where the inhabitants dwell, with their flocks and herds, preferring, it would seem, these primitive abodes to the ancient buildings which stand unoccupied all about them.

There is a mosque of modern construction in Semnoon, built of glazed bricks, and near it an ancient minaret (see page 161) whose top is reached by an ascent of ninety steps. A little column rises from the platform, and the height of the whole structure is about one hundred and twenty feet. This minaret leans visibly towards the north; its surface, which is covered with bricks laid in various regular patterns, has been much battered and defaced by wind and weather, but it bears an inscription yet legible, which gives reason to believe it was built by one Ali Hassan, in the tenth century of our era. Whether it was ingeniously designed to vary from the perpendicular, or whether it has assumed its leaning position in the course of the ages since its erection, we shall never know, but it seems more probable that a gradual and gentle subsidence of the ground has produced this result, than that any architect should willingly have thus imperilled the perpetuity of his own work.

Mashhad, the capital of Persian Khorassan, is an important commercial centre, being the point of convergence of the caravan routes between Persia and India and China, through the countries of Afghanistan and Turkestan respectively. It covers a great extent of ground, being surrounded by fortified walls several miles in circuit. Much of this intramural area is, however, occupied by gardens and orchards, but still larger space is devoted to cemeteries, so that nothing can be more sombre than the appearance of the town. The tomb of a Mussulman saint, Imám Razá, situated in Mashhad, has given the city such a sacred character throughout Persia, that it is the highest ambition of every Mussulman in the Shah's empire to be buried within its walls. He visits it while alive, at any rate, and if by chance he die upon this pilgrimage, he is so much the surer of Paradise. The number of pilgrims at one time used to amount to thirty or forty thousand yearly, but of late, since the famine, has fallen off to ten or twelve thousand. Besides the many who die on their pilgrimage, and hence are buried in Mashhad, it is quite common for pilgrims to bring with them the remains of their friends, to inter them in the holy city. And so it has

come to pass that Mashhad is like a city of the dead, and its inhabited dwellings have an air of being built at random among the graveyards and the ruins.

There is nothing accidental, however, about the appearance of the Mosque of Imám Razá, with its group of religious and ornamental appendages, occupying as it does the centre of the city, and towering above all other buildings, a magnificent group of domes and minarets. To it all roads lead, and every traveller's gaze is at once directed, and on reaching the spot the distant promise is more than made good.



Minaret of Semnoon.

The first thing that strikes the eye is a noble oblong mass of buildings enclosing a court of about four hundred and eighty feet in length, and two hundred and twenty-five in width. These buildings are two stories in height, the apartments opening in front into a handsome arcaded gallery. In the centre of each side and each end is a magnificent and very lofty gateway (see page 163), and the whole is completely incrusted with a mosaic work of tiles, painted and glazed, and arranged in

figures of the most tasteful patterns and colors. This is called the Sahn. The area of this court is flagged with grave-stones, forming a continuous, though not a very smooth pavement, under which lie interred the remains of Persian nobles, brought hither from all parts of the country, to be buried as near as possible to the bones of their favorite saint.

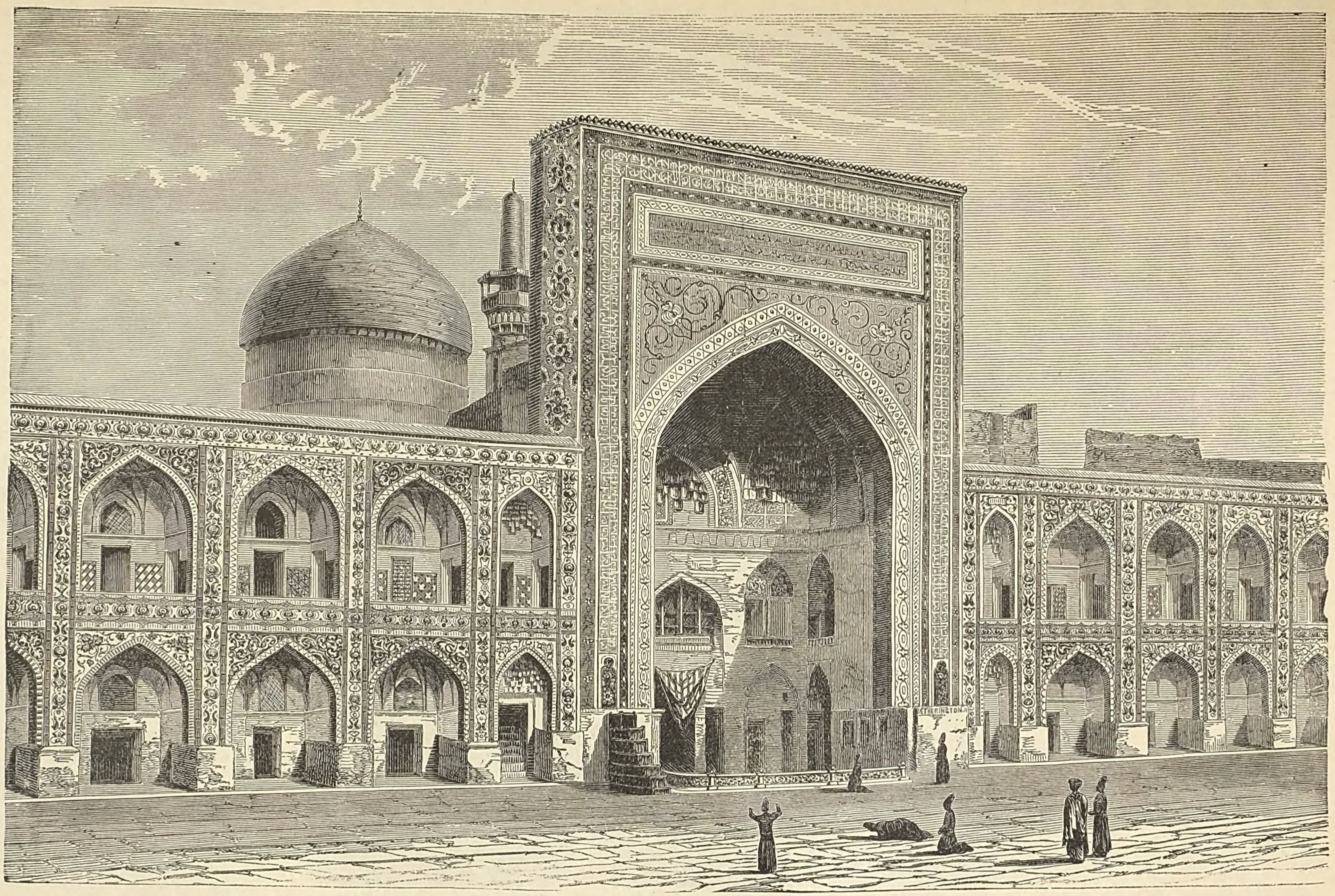
The gateways at the two ends of the court contain wickets of elegant wrought steel, for purposes of entrance and exit. The gate on the southwest gives admittance into the mausoleum, while that on the opposite side is built only for uniformity; it is in architecture and size the exact copy of its prototype, but differs in ornament, the former being adorned with gilding, the latter with colored tiles.

Of the mausoleum itself little is seen externally except the dome, which is covered with gilded tiles relieved with broad bands of bright blue, which bear Arabic inscriptions in letters of gold. Its most striking ornaments, however, are two beautiful minarets, one of which springs from a part of the mausoleum itself, the other, from the gateway opposite. Each of these minarets has a handsome gallery of carved wood, richly gilded, as is also the larger part of the shaft itself.

Beneath the dome lie the remains of the saint; and very near is another tomb, which the western traveller will regard with much deeper interest, — none other than that of his boyhood's friend, the great Kalif, the "good Haroun-al-Raschid." All that gold and silver, and wrought steel of finest quality, and jewels and Persian carpets, and ever-burning wax candles, can add of majesty and solemnity to this shrine, has been lavished upon it. The expense of its maintenance is considerable, and is provided for in certain regular ways worth mentioning. First, by rents of a caravansary and a bazaar belonging to the establishment, but outside its grounds; secondly, by the rent of the lower row of apartments around the court, which are let for shops; lastly, by the large sums obtained for permission to inter within the sacred enclosure.

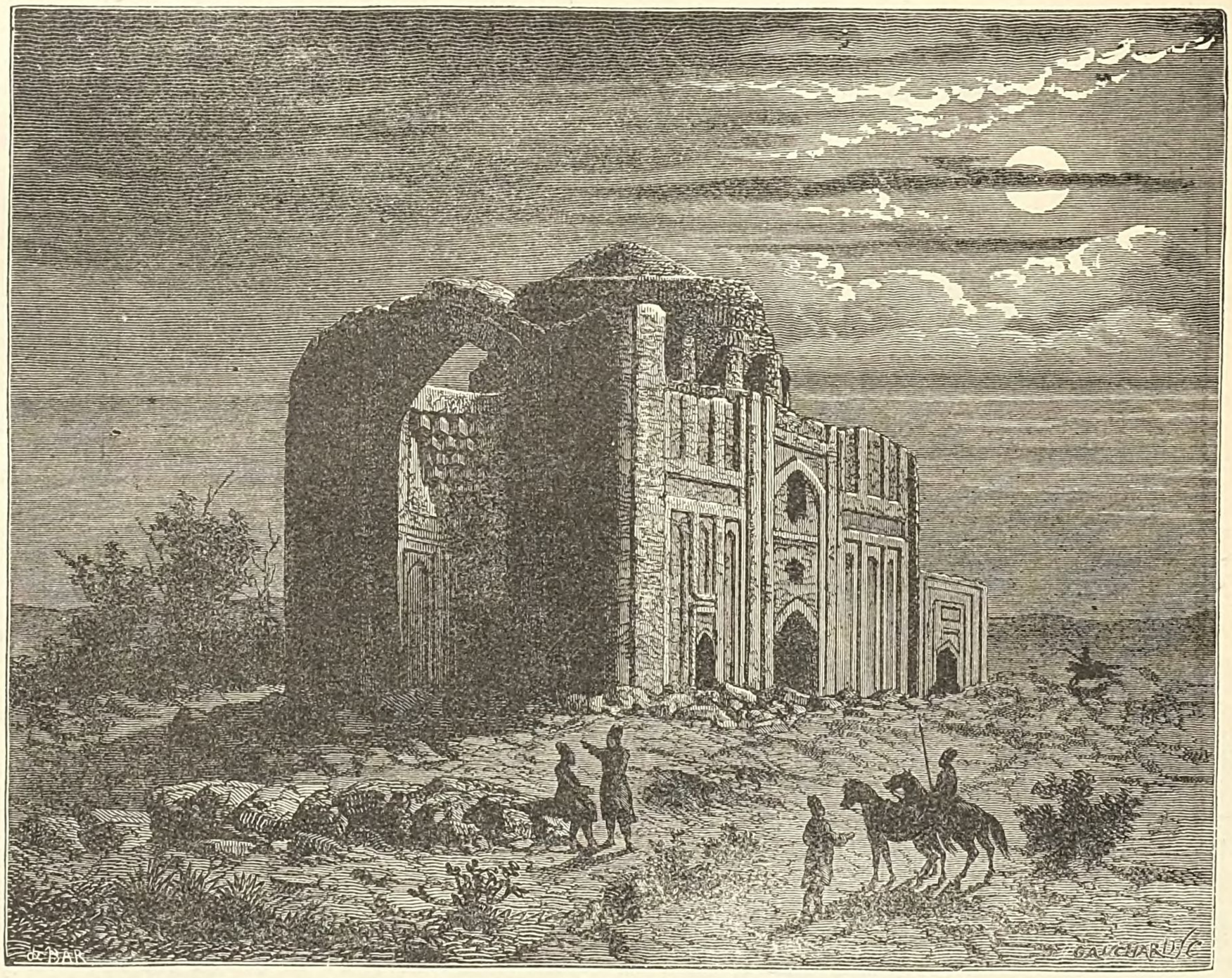
The events which have consecrated this as the principal shrine in Persia, are briefly as follows: it is related that Alexander the Great, in his expeditions through Khorassan, came by chance to this spot, and pitched his tent here. During the night he had a dream, which gave him so much uneasiness that, according to the legend, he called for his wise man, Aristotle, and communicated it to him. The latter explained the dream as signifying that some person of holy origin should at some future time be interred upon this spot. Upon this Alexander decided to mark the place, and ordered four walls to be built, as a memorial to future times of his prophetic dream.

Centuries passed away; and the spot remained undisturbed until, one day, Haroun-al-Raschid, reading by chance a book of Aristotle, learned what Alexander had done. The story interested him, and being at that time near his end, he gave orders that when he should die his body should be interred in the place indicated by the



INTERIOR COURT OF THE MOSQUE OF IMAN RAZA.

sage as the spot where Alexander's walls were built. That his wish might be the more readily carried out, he removed nearer to Mashhad, and at his death, shortly after, the command he had given was fulfilled. And still it remained uncertain who the sacred occupant of the enclosure was to be. This, however, speedily decided itself. A certain Mussulman saint, Imám Razá, poisoned by order of Haroun-al-Raschid's son and successor, signified by certain unmistakable signs where he was to be interred, and lo! it was within Alexander's walls, and with his feet towards the head of Haroun-al-Raschid.

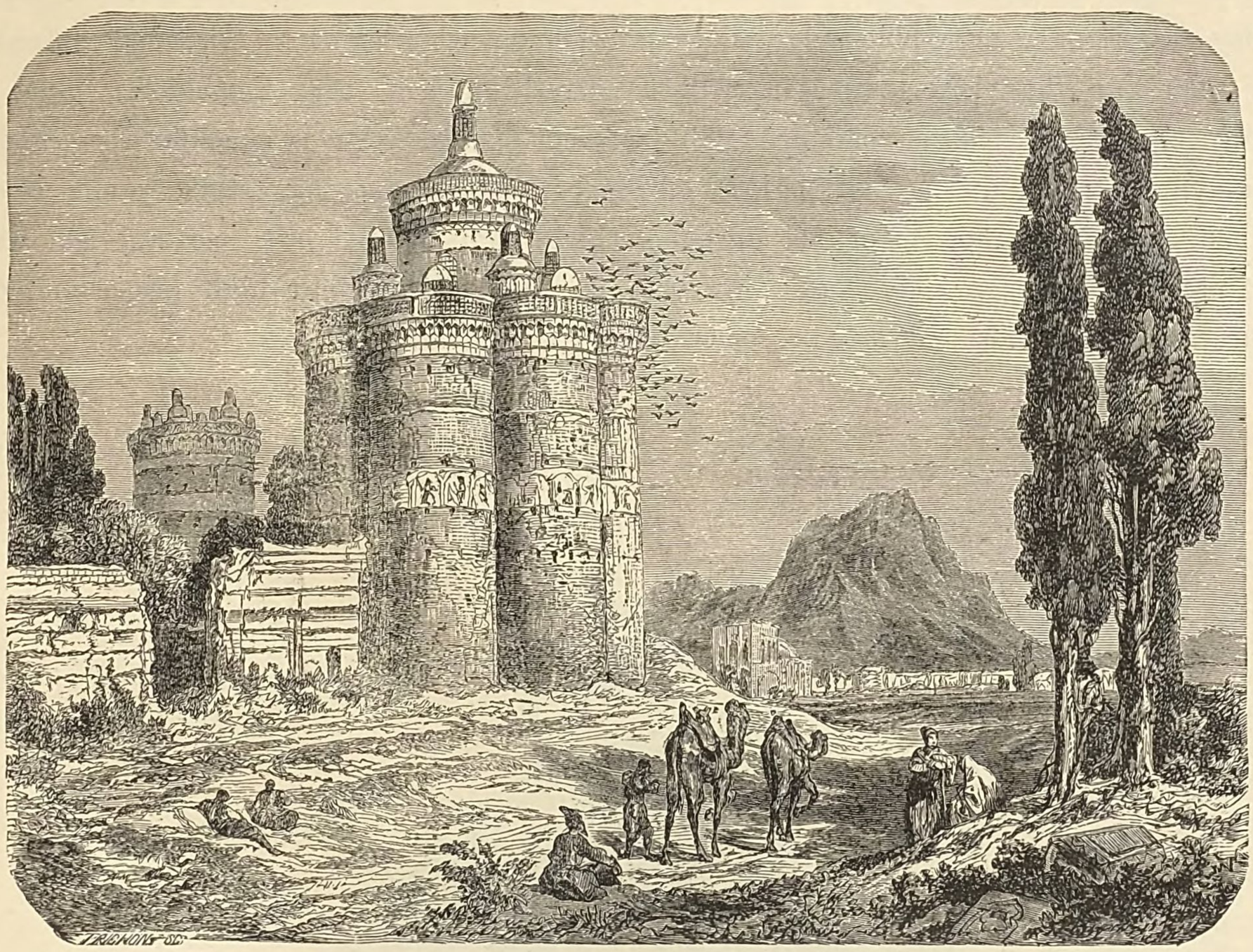


Ruins of Toos.

Three hundred years after this, the performance of miracles of healing at this tomb recalled attention to its sacred character, and the present Mausoleum was erected, since which time successive Shahs have vied with one another in its adornment. Around the mosque itself are gathered more than a dozen buildings of various designs, and the whole quarter is thronged daily with pilgrims and students. No better opportunity exists in Persia for the study of Arab art as modified by Mongol influences, and it is only to be regretted that so few travellers, who visit the empire of the Shah, find their way to this most interesting place.

Seventeen miles northwest of Mashhad are the remains of the once celebrated city of Toos, the ancient capital, upon the eastern bank of a small stream that forms a principal branch of the river Mashhad.

The walls of Toos are conspicuous at a distance upon the slightly inclined plane of the valley's eastern side. They are, as usual in Persia, of mud, with towers at intervals, all ruinous indeed, but still standing high above the ground. They embrace a circuit of from three to four miles, but there is little within them to indicate their former magnificence. The peasantry of a village which now occupies a mound of earth in one quarter of it, cultivate the greater part of the area, reaping good crops of wheat and barley from ground once covered with houses, and in fact chiefly formed from the crumbled materials of their walls. The most important ruin is a large square

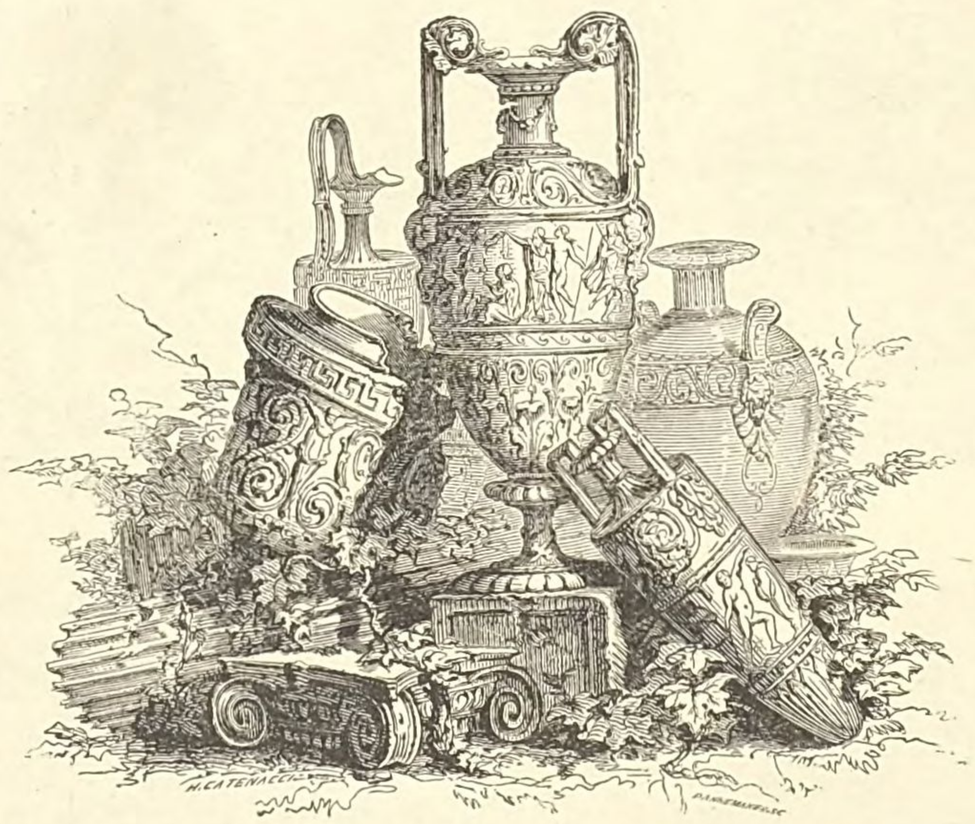


Persian Pigeon House.

building (see page 164), constructed of burnt brick, and partly covered by a dome rising in the centre. Its height is considerable, and it closely resembles many of the tombs near Delhi. The exterior dome has severely felt the injuries of time, but the inner one is quite perfect. Nothing about it indicates its date or use; a solitary tombstone on one side the doorway bears an inscription of which nothing could be made out but the word "Allah." At a little distance from the building there is another tombstone, which has evidently been removed to the spot where it lies from some other place.

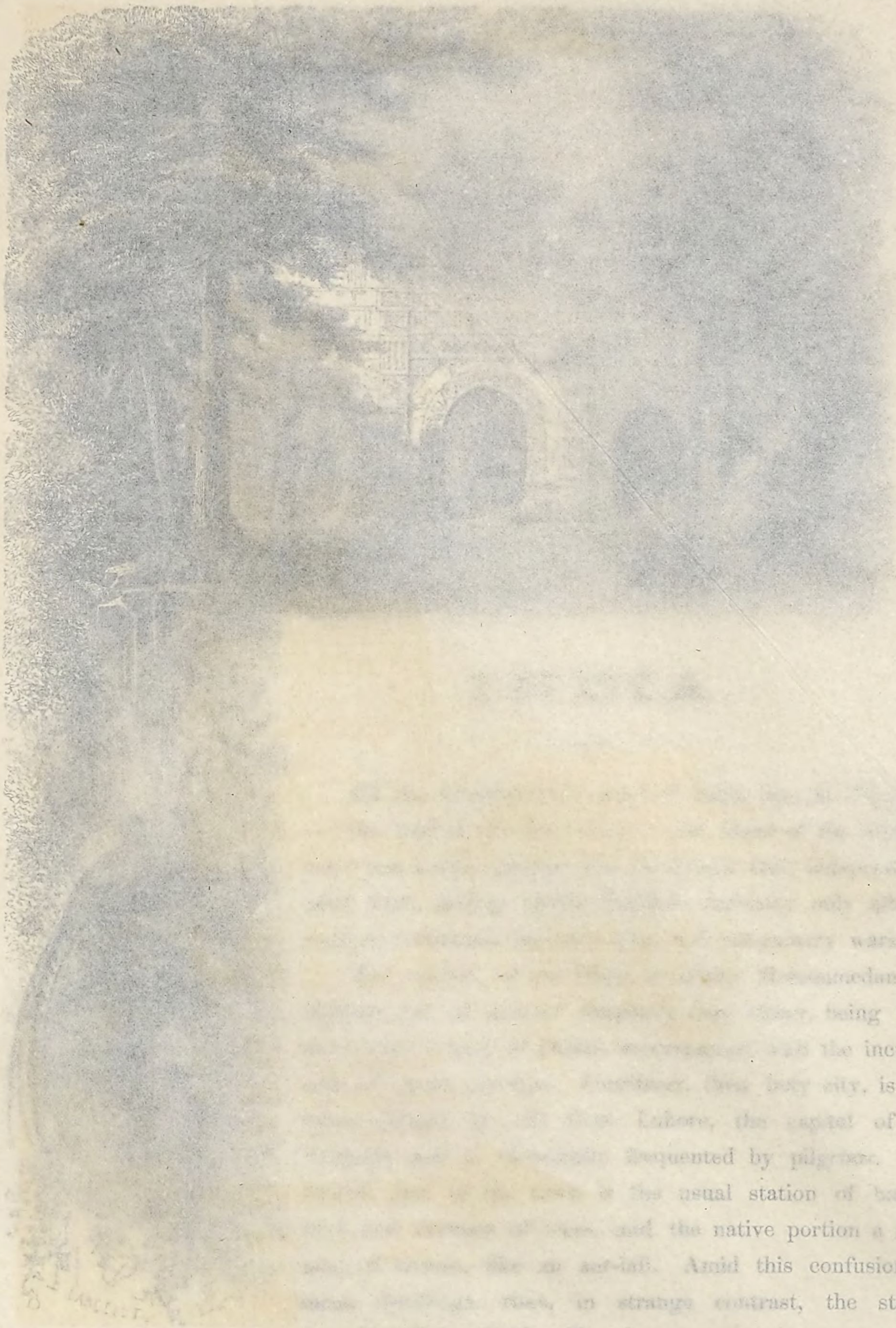
Perhaps the most curious structures to be found in Persia are the pigeon-towers, with which some of the larger cities are enclosed as by a *cordon* of forts. These

are high round towers, slightly tapering upwards, with several small pointed domes on top, full of apertures by which the pigeons enter. The exterior of the tower is usually whitewashed and painted with fanciful cornices, and all manner of strange devices, producing a quaint and picturesque effect. These towers are intended for the collection of guano as a fertilizer for the melon gardens, so numerous throughout Persia. The whole interior of the tower is divided into thousands of little triangular niches, in which the pigeons make their nests and rear their young. A few domesticated doves are first put into a tower, and they soon attract the wild ones, which come in myriads and establish themselves in the domiciles prepared for them. They are all of a slaty-blue color, like our common wood-pigeon. The only entrance for man into the pigeon-tower is a door, or rather a hole, near the bottom, which is closed up with a shutter or stone slab fastened in, and remains shut for the greater part of the year, during the periods of incubation and fledging of the young birds. When opened, the bottom of the tower is filled up to the height of several feet with the precious fertilizer. These pigeon-towers formerly rented for a high price, but now are less in demand, and are in some cases totally neglected.

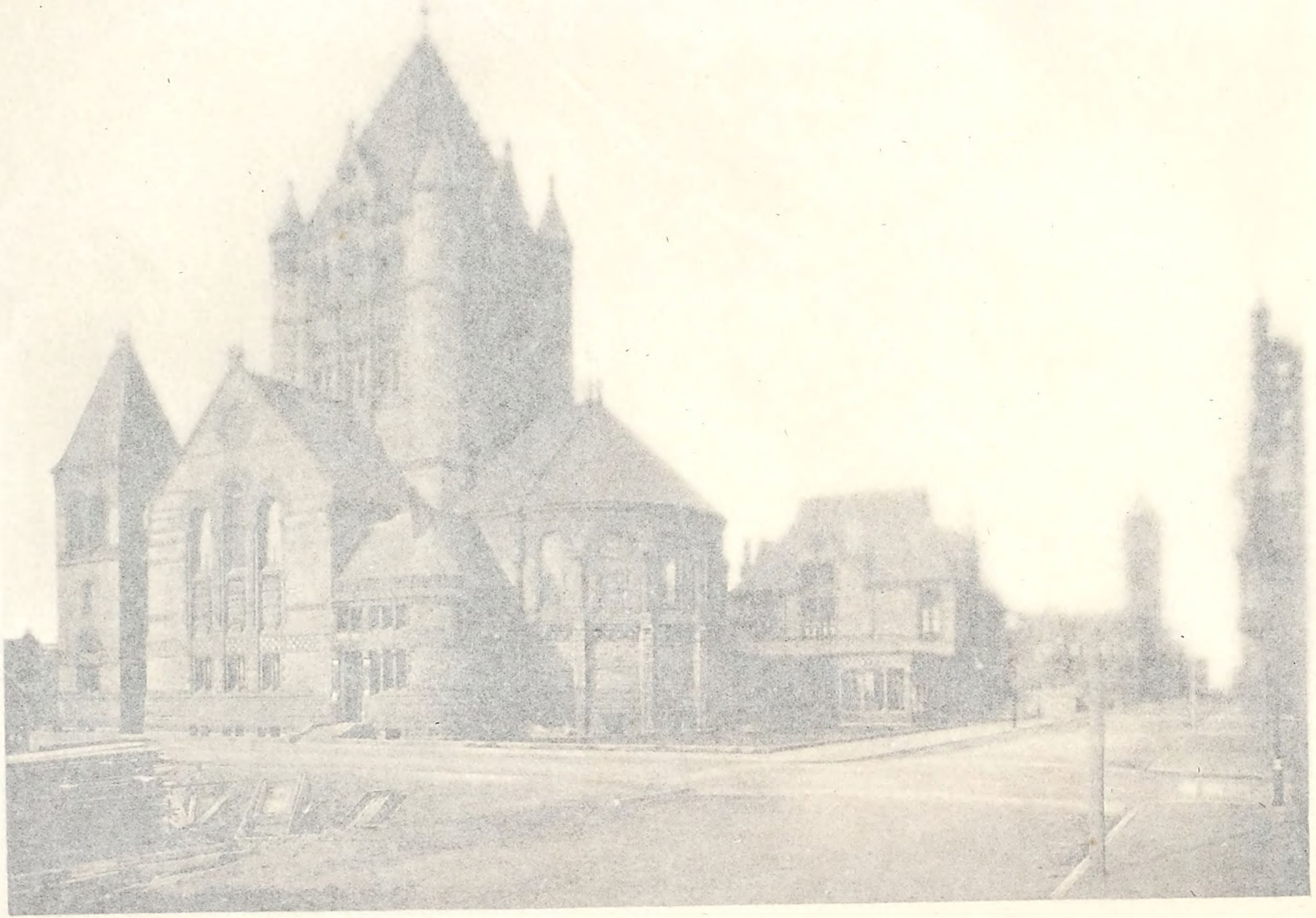


Trinity Church

BOSTON, MASS.

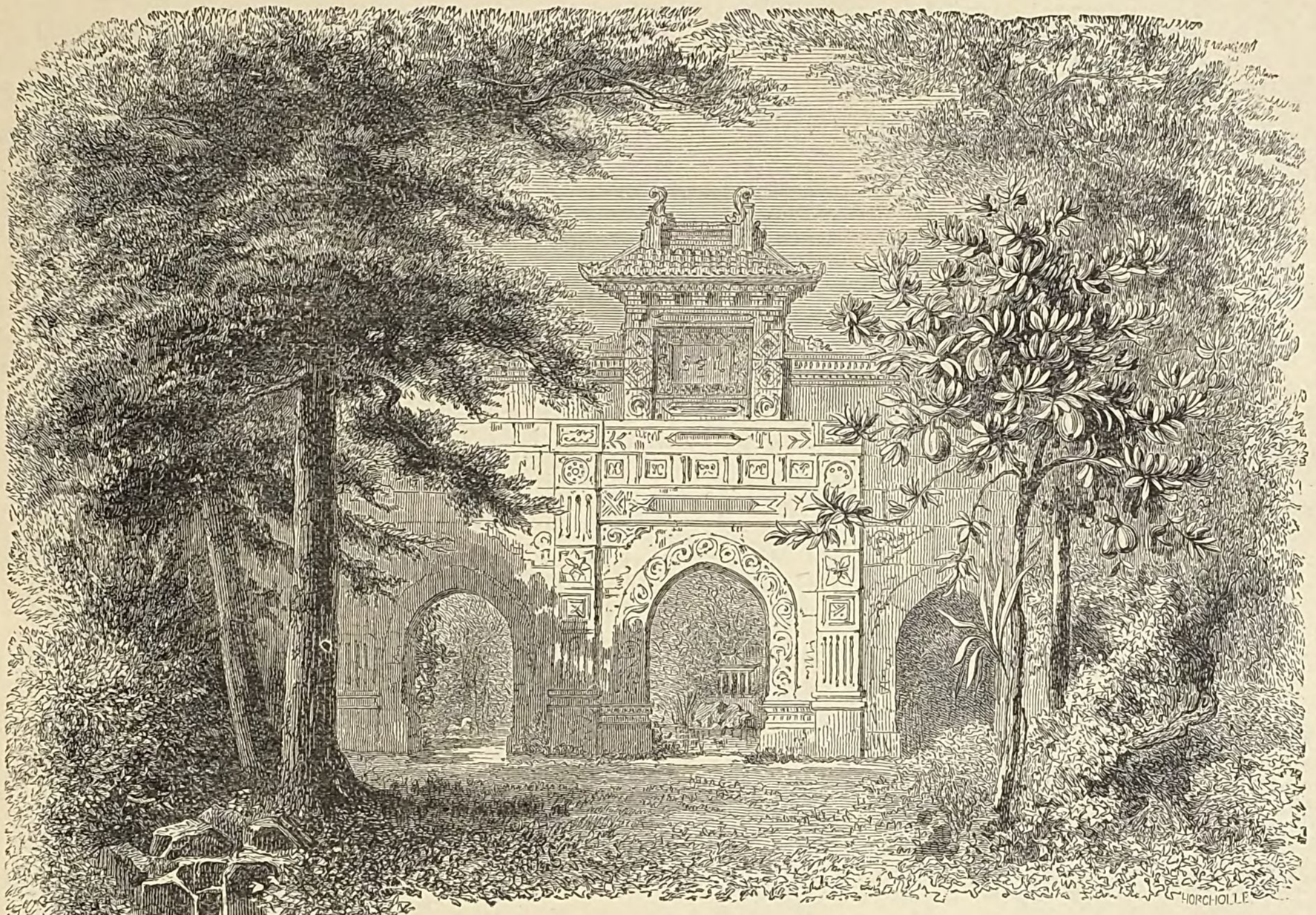


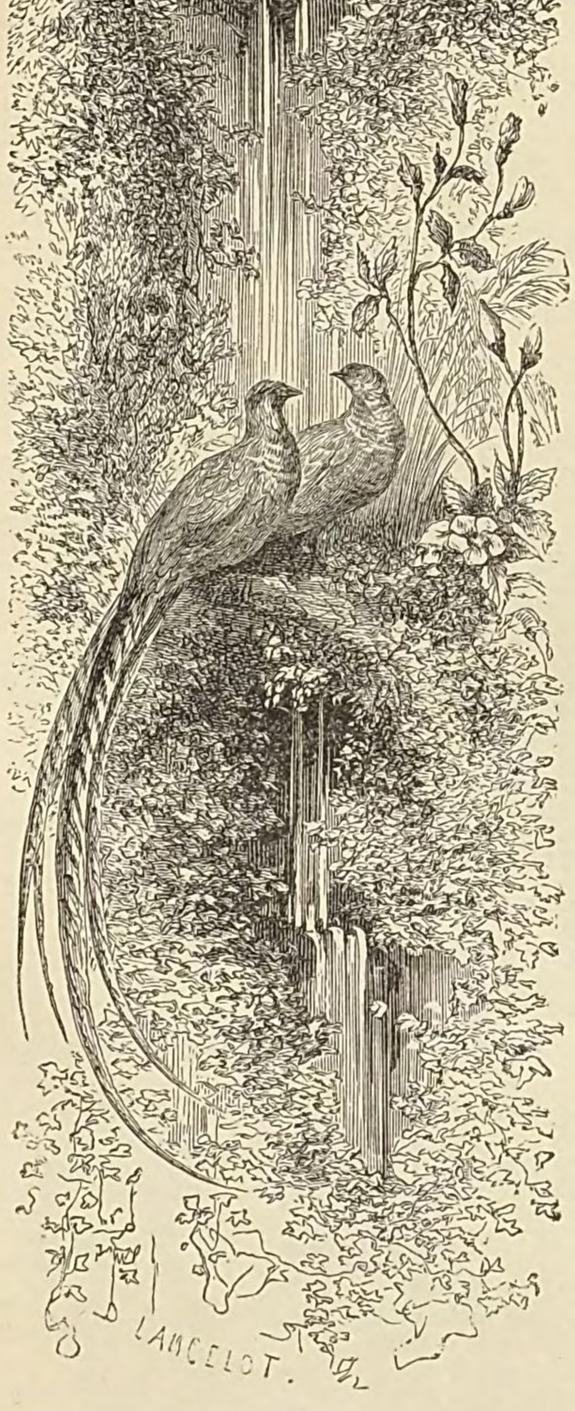
This building, about sixty feet in length and thirty in width, stands in the



Trinity Church

BOSTON, MASS.





INDIA.

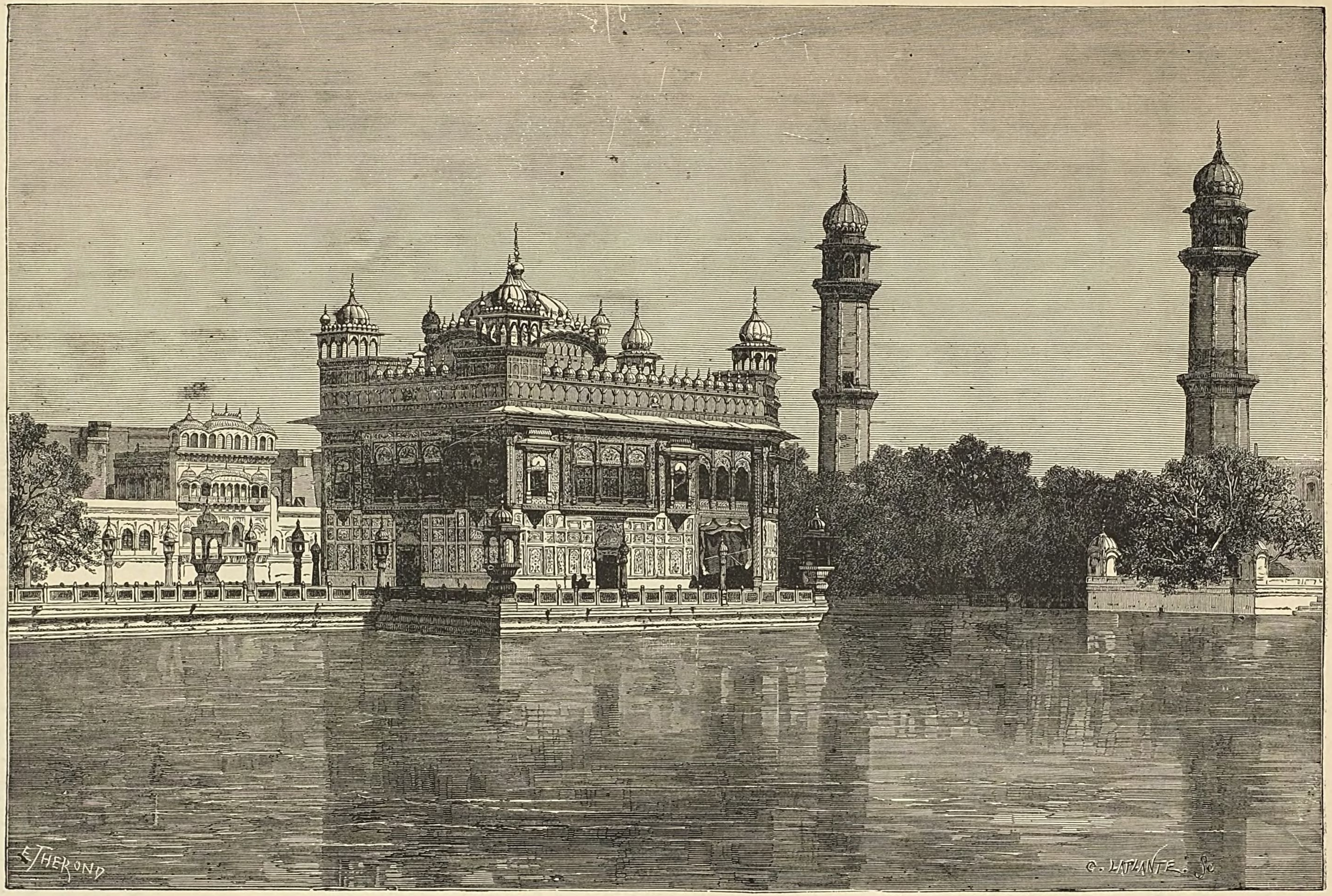
IN the northwestern corner of India lies the Punjaub, — "the land of the five rivers," — the home of the Sikhs, a brave and warlike people, who maintained their independence until 1849, falling under English authority only after a resolute resistance, and two long and sanguinary wars.

The religion of the Sikhs is neither Mohammedan nor Hindoo, but of greater simplicity than either, being little more than a form of Deism, accompanied with the inculcation of moral precepts. Umritseer, their holy city, is two hours distant by rail from Lahore, the capital of the Punjaub, and is incessantly frequented by pilgrims. The British part of the town is the usual station of bungalows and avenues of trees, and the native portion a mere nest of houses, like an ant-hill. Amid this confusion of mean dwellings, rises, in strange contrast, the stately splendor of the Golden Temple, represented on page 169. This building, about sixty feet in length and thirty in width, stands in the

middle of a monstrous tank, two hundred yards square. Surrounding it are many handsome structures called Durhmsalas, occupied by pilgrims who, during their stay, are housed, fed, and clothed by the benevolent rajahs to whom the buildings belong. Upon entering the grounds surrounding the temple, the visitor is required to lay off his shoes and replace them by woollen slippers, the enforcement of this rule being a privilege left to the Sikhs in memory of their adherence to their English rulers in the time of the Indian mutiny. Half-way up the path leading to the temple, a square, paved with mosaics, is flanked by pavilions from whose open windows the priests, seated inside, salaam to the stranger, and invite him to enter. In one of them is shown the cell where the Sikh Bible is guarded by night, and whence it is solemnly carried every morning into the Golden Temple. Of this book Max Müller says: "Though tedious as a whole, it contains here and there treasures of really deep poetic thought."

The gateway to the path leading to the temple across the tank is covered with plates of chased silver twelve feet square, and along this bridge marble pedestals support richly gilded lamps. The temple is two-storied, the walls being of marble inlaid with mosaics of the Florentine style, representing birds, vases, and flowers; the roof is surmounted by three domes, around which are grouped a multitude of little cupolas, all highly gilded, and glittering in the light. Add to this silver doors embossed and chased with various designs, scarlet curtains, and orange banners flaunting from high flagstaffs of the same color, and you have a scene of really dazzling effect. Across the little bridge and through the open door, a crowd is moving incessantly in and out. Within the temple, upon an embroidered cushion and beneath a superb canopy, lies the open volume of the sacred writings. Before it sits the chief priest, a young man who seems only to watch the crowd or idly talk with those near him. At his side another chants some sacred hymn in a monotonous but not unmusical voice, accompanied by musicians beating the Indian drum. A white sheet stretched upon the ground before him receives the offerings of the faithful, very numerous, but of the smallest possible value.

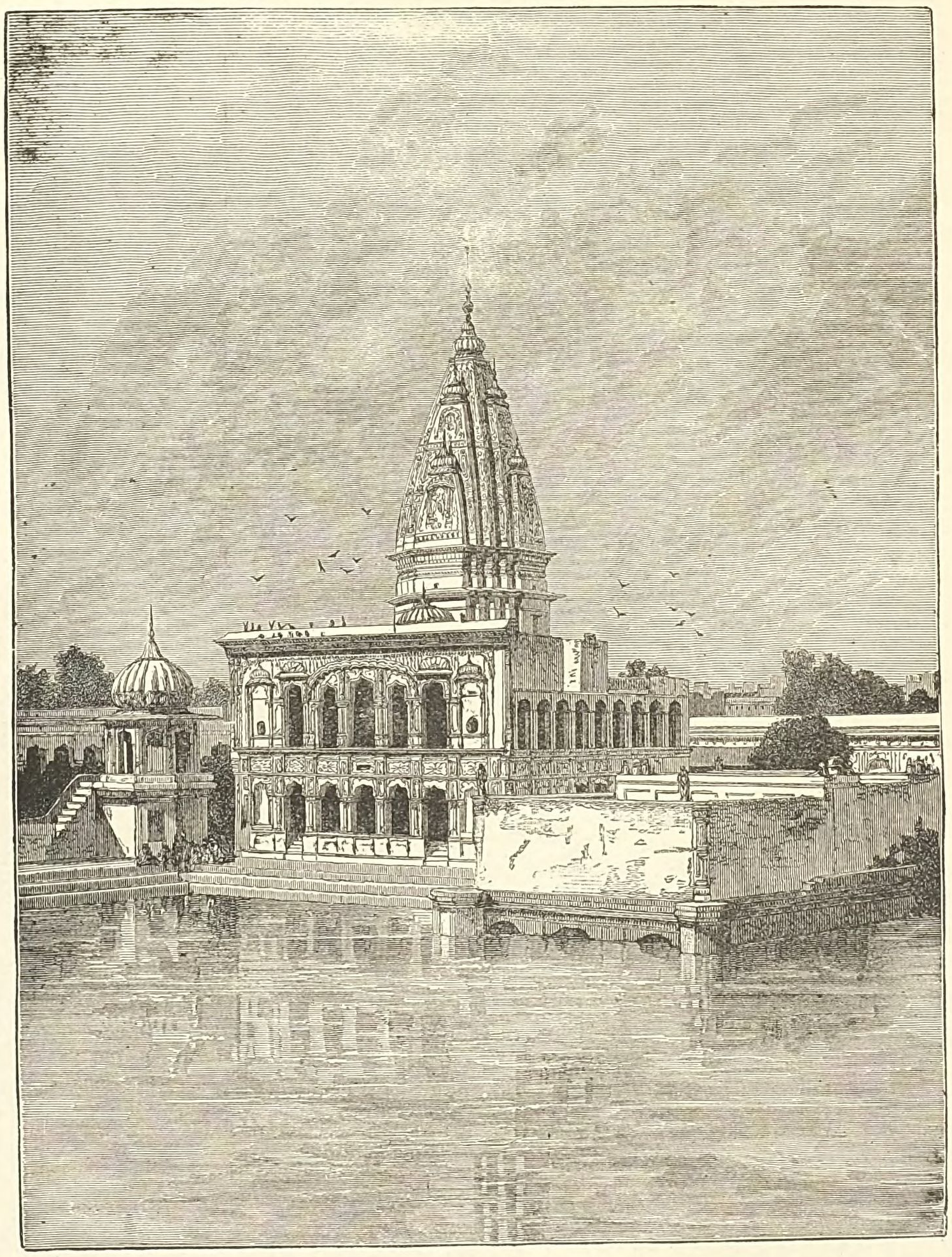
The sacred tank — *Umrita Saras*, "the fount of immortality" — was constructed in 1581, and its chief miracle is, that though thousands of filthy pilgrims bathe in it, it always remains pure, as such a fountain should be. About two hundred years after its construction, Ahmed Shah, alarmed at the growing importance of the Sikhs and their religion, came down from Afghanistan, filled up the sacred tank, and, to complete its profanation, slaughtered over it the sacred kine of the Hindoos. This so enraged the Sikhs that they began a warfare, half religious, half patriotic, against their Mussulman neighbors, which resulted in the overthrow of the foreign invaders. The desecrated fountain was repaired and purified, and, from that day to this, has duly wrought miracles to the satisfaction of the pilgrims who visit it, and doubtless



THE GOLDEN TEMPLE OF UMRITSEER.

to that of the five or six hundred lazy priests who are maintained here in idleness by the gifts of the faithful.

In Lahore, the chief city of the Punjaub, the most notable edifice is the tomb of her greatest ruler, Runjeet Sing. The building stands at the end of a quadrangle, two hundred yards square, and has a large artificial pond in front of it; it is

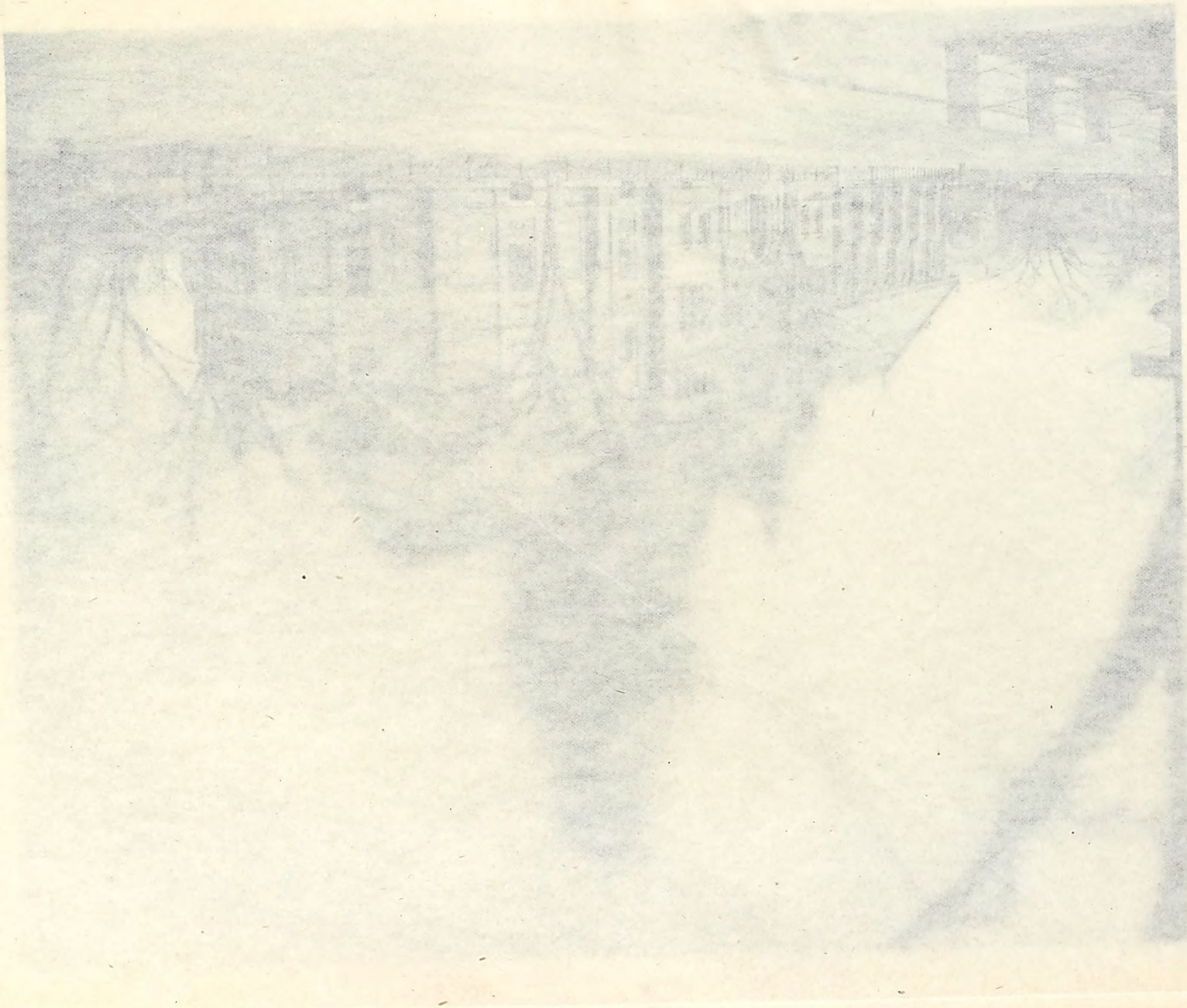


Tomb of Runjeet Sing.

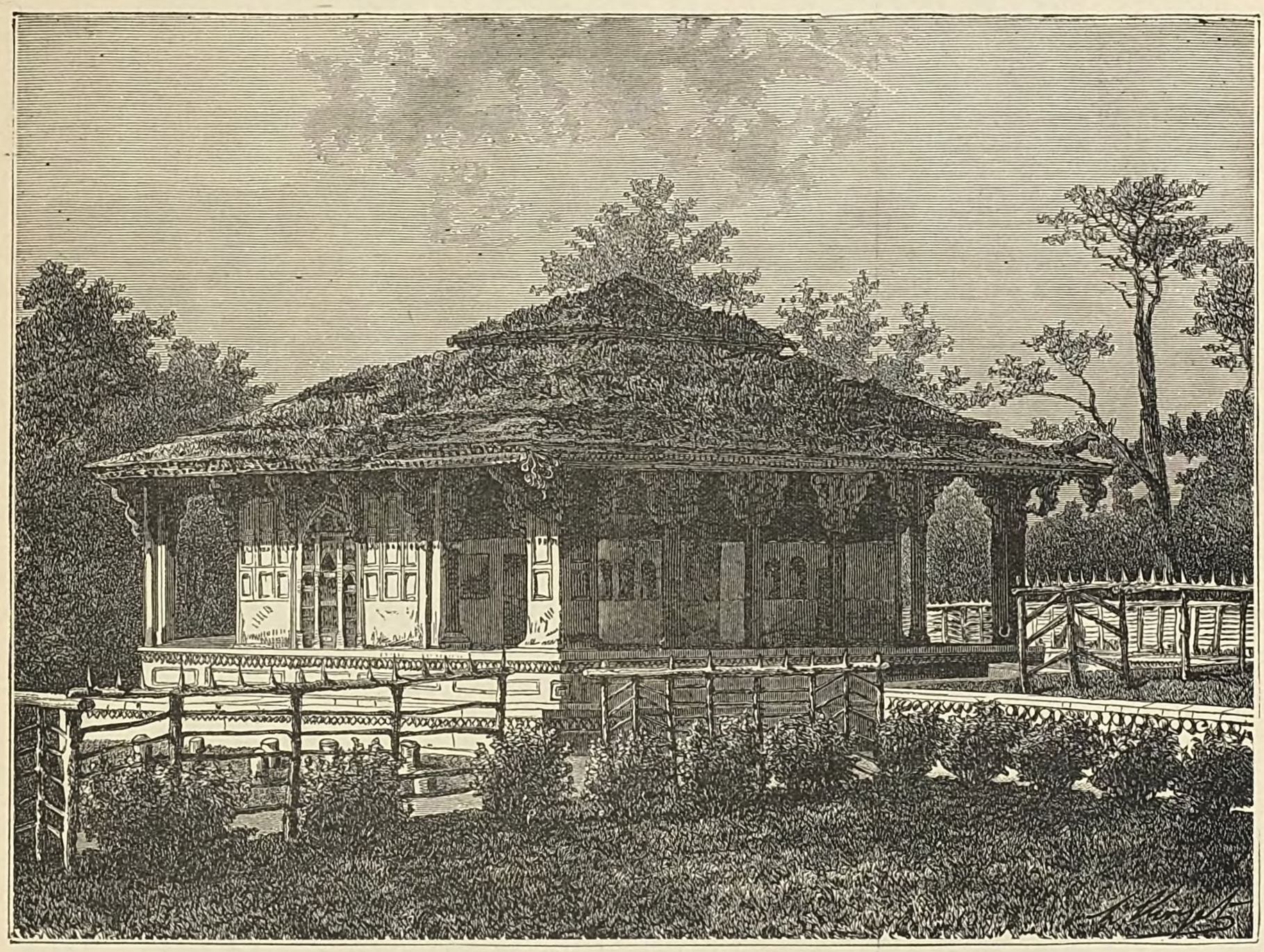
constructed of red sandstone, inlaid with marbles in designs of roses and lilies. Here the king's remains were burned with great pomp, on his death in 1840, and his four wives, together with five Circassian slaves, perished upon the funeral pile. The "Lion of Lahore," as his contemporaries styled him, was a truly remarkable man. Although his boyhood had been passed in the idleness and profligacy of an Oriental harem, he manifested the mental vigor which would presuppose a Spartan training. Possessed

Memorial Hall.

CAMBRIDGE, MASS.



of great natural courage, he was so ruled by his judgment that he courted no unnecessary danger, while never shunning that which it was expedient to encounter. In his dealings with men he showed unusual knowledge of human nature, and knew not only how to reduce to subjection the proud and high-spirited chiefs of the Punjaub, but to make them his warmest personal friends and allies. He was an excellent man of business, though he could neither read nor write, and it was his policy to seem a devout believer, and to listen for hours daily to the reading of the Sikh



Dwelling-Houses in Srinagar.

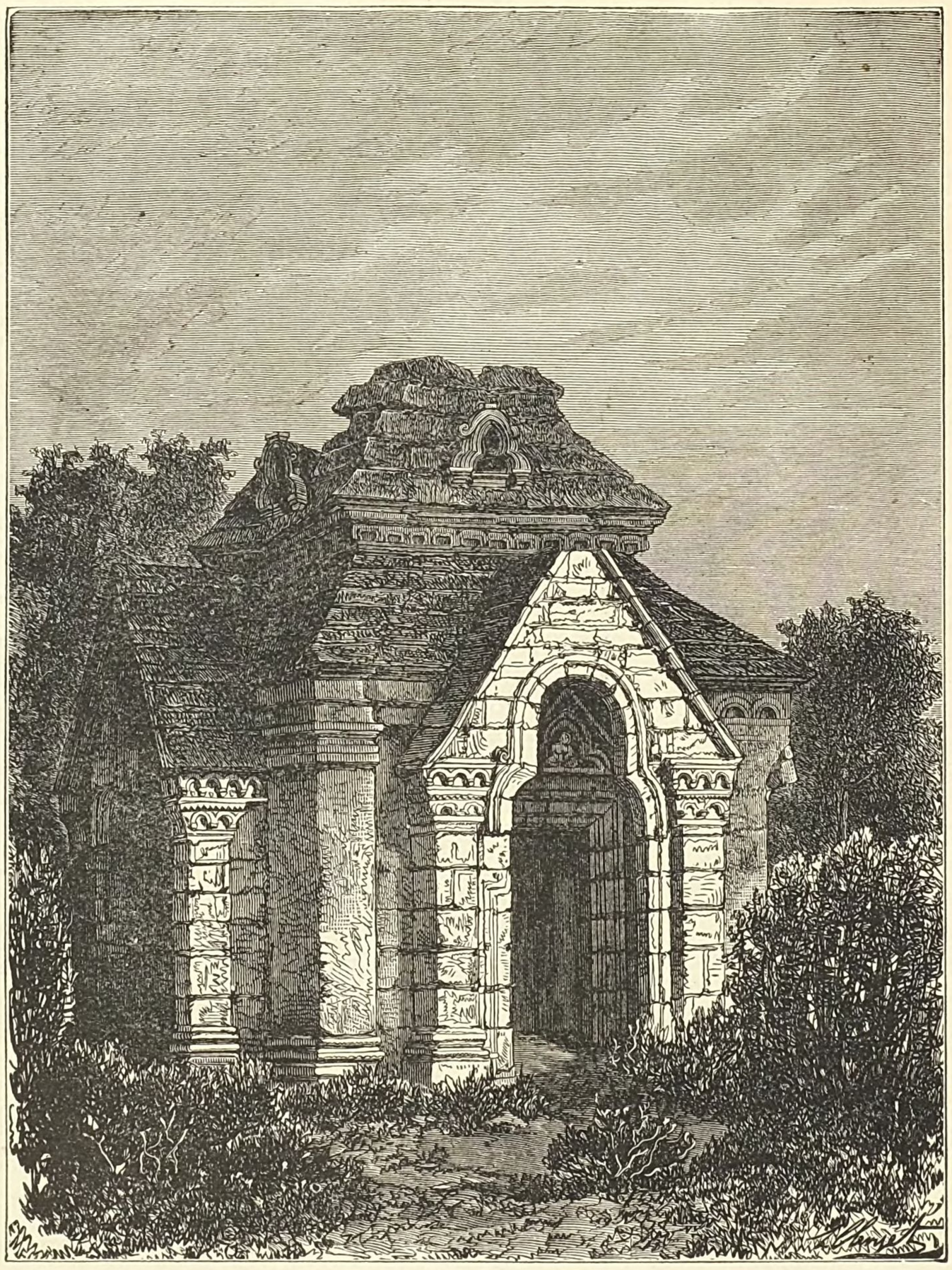
scriptures, while in reality his own advancement was the only law to which he gave the slightest obedience.

This prince was for some years the owner of the great Koh-i-noor, and it passed from the hands of his successor, on the annexation of the Punjaub, into the possession of the East India Company, by whom it was delivered up to Queen Victoria.

On the north of the Punjaub lies the beautiful land of Cashmere, an irregular valley from five to six thousand feet above the level of the sea, and shut in by mountains of which the summits rise here and there into the region of perpetual snow.

Srinagar, the chief city, lies along the two banks of that great branch of the

Indus known in classic story as the Hydaspes. Its population is perhaps a hundred and twenty thousand ; and the abundance of ruins scattered throughout the town proves that its inhabitants were once much more numerous. Many of the dwelling-houses are two or three stories in height, and resemble Swiss *châlets ;* others have but one floor, and are surrounded by broad verandas (see page 171), while all build-



Buddhist Temple, Pandradar.

ings, even to mosques and palaces, are roofed with a heavy layer of turf, giving them a singular air of rusticity.

In striking contrast to these modern structures are remains of early architecture of great solidity and in excellent preservation. One of the finest of these ancient buildings is a Buddhist temple, represented above, situated at Pandradar, the former capital of Cashmere.

DANCING-GIRL OF CASHMERE.

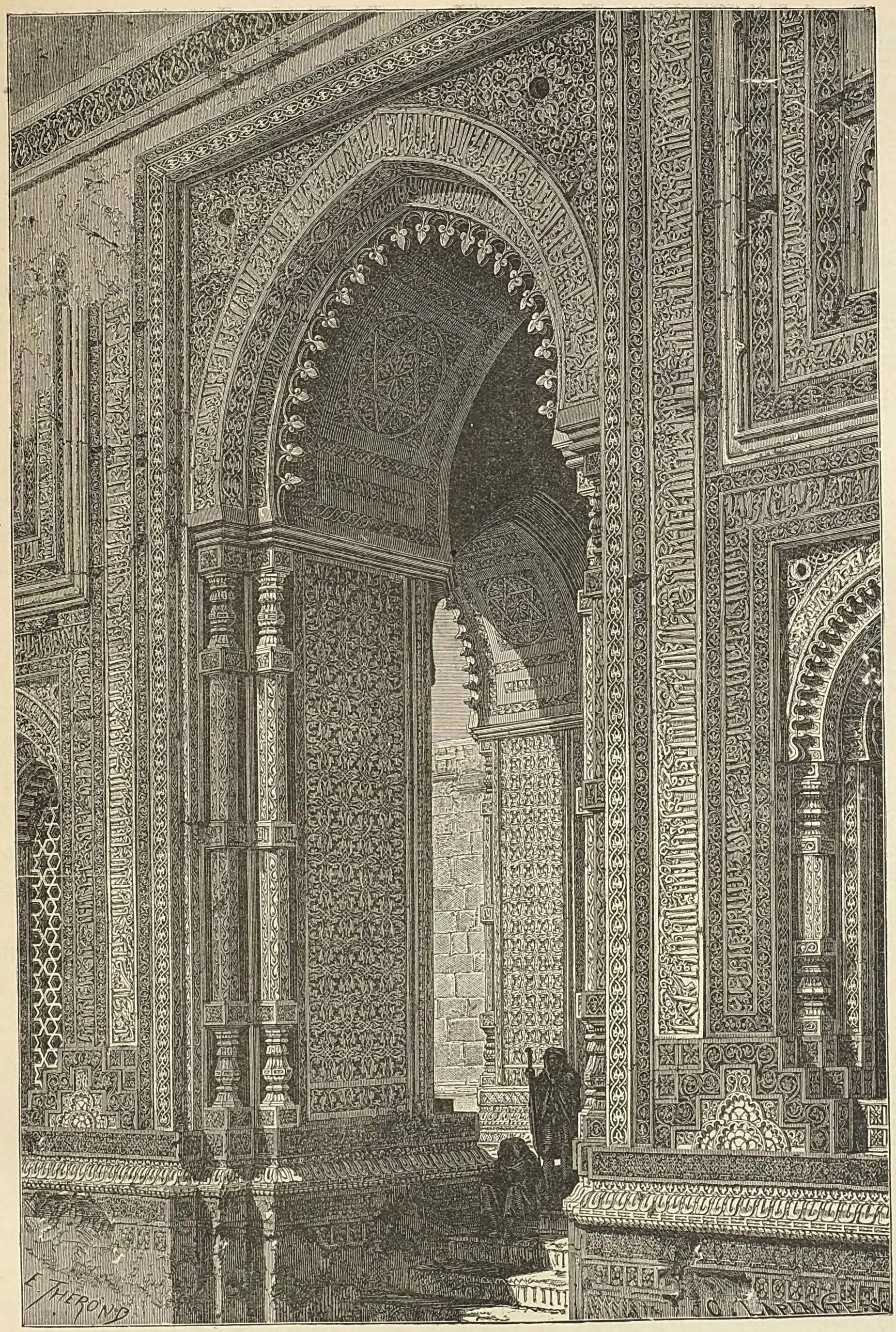
The inhabitants of this valley belong to the purest Aryan type. The men are tall, robust, and well-formed, and the women of distinguished beauty, not unlike the handsomest Italian peasant-women.

About two hundred miles south-east from Lahore stands Delhi, the great Indian metropolis, or, indeed, we might say, the ancient capital of the Asiatic world. A comparison is naturally suggested between Delhi and Rome; but while Rome presents the spectacle of a city gradually growing in size and importance, till it becomes, through the ambition of its inhabitants, the mistress of the world, Delhi appears to have played an opposite *rôle*. Founded originally by invaders not native to the Indian soil, it has been fought for and captured in turn by the successive conquerors of the peninsula, and has been regarded as, in a sense, the palladium upon whose fate depended the destiny of the entire country, — a superstition lasting until our own time, and held of such importance that the English were never regarded as legally the masters of India until the time when the English banner waved from the towers of Delhi. Rome, too, can boast of an antiquity of but twenty-six centuries, while the ancient Indian traditions make mention of three cities, Madhanti, Hastinapoura, and Indrapêchta, which have succeeded one another upon the spot now occupied by the modern Delhi, the last of which, Indrapêchta, was founded in the thirteenth century before the Christian era.

Having become the capital of the great Mussulman empire of India, Delhi, at the will of each new dynasty, was transported to some new site, and in this peregrination has strewn with its monuments a plain twenty-three miles in length and eleven in breadth. Of these structures, the most imposing is the triumphal column of Koutab, erected by the Mussulman conqueror Koutab-Oudin-Eigeb, in the very centre of the latest Hindoo capital. The column is approached by a narrow path between two rows of lofty trees, united into an arbor by a luxuriant growth of jasmine. Following this path for some distance, the traveller finds himself on the edge of a shallow ravine, filled with shrubbery and flowering plants, at the end of which rises the tall column, outlining its reddish mass against the azure of the sky.

Nowhere else in the world, perhaps, has Nature added so much grace to the work of man. In general, ruined cities are sad and desolate; it would seem that the soil itself had also been smitten with a curse. Here, on the contrary, everything is fresh, gay, and delightful; birds fill the air with their music, and the most luxuriant flowers are in bloom as if in a garden. Crossing this ravine we find ourselves at the entrance of the building, before Aladdin's Gate, whose exquisite beauty is reproduced on the opposite page, from a photograph taken upon the spot.

This portal, erected in 1310 by the Sultan Ala-Oudïn, might well have inspired the famous author of the story of the wondrous Lamp; the Genius of the Roc surely never created anything more fairy-like. The work of the Spanish Moors in Grenada



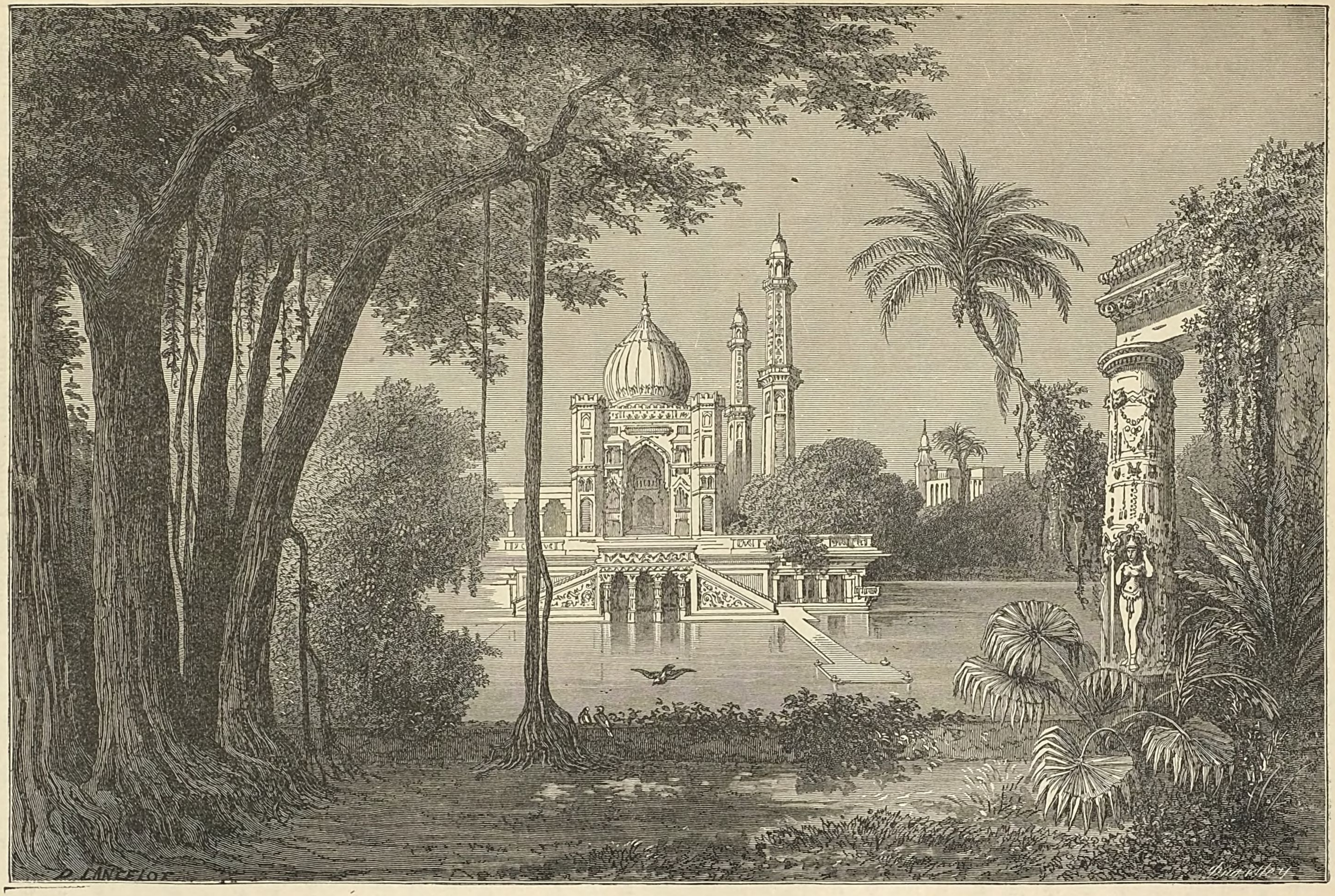
ALADDIN'S GATE. DE'.HI.

cannot be compared to this architectural gem. Here, it is the stone itself, a red sandstone relieved with white marble, which furnishes the color, and the delicate arabesques which cover all its faces are genuine carvings, while in the Alhambra the effect is obtained by the use of brilliant color and gilding spread out upon meagre structures of brickwork. Besides, there is not a point in the Moorish palace where one finds the purity of line and grandeur of proportion which characterize to so high a degree the work of the Indian sultan.

This gate forms a square pavilion pierced on each side by a denticulated arch, and surmounted by a handsome dome. The interior of the pavilion is finished with much elegance. Entering through this magnificent portal, the traveller at once finds himself at the foot of the Koutab, which, standing entirely isolated, rises in the centre of a paved area, lifting its haughty head to the height of two hundred and twenty-seven feet. The tower is in the form of a cylinder, forty-six feet in diameter at the base, and only ten at the summit. It is divided into five stories, which grow less in height from the lowest upward. The three lower are of red sandstone; the upper, built in 1368, to repair damage done by lightning twenty-eight years before, are of marble.

Within the city, the palace of the Grand Moguls is the chief object of interest to the visitor. This mass of buildings, inclosed by a wall forty feet high and three quarters of a mile in circumference, stands at the head of the main thoroughfare, the *Chandnee Chouk*, or Silversmiths' Street; the walls, of red sandstone, are crenellated and adorned with bands in relief, and in the centre of each side of the quadrilateral is a handsome gate, flanked with turrets and surmounted with kiosques. A kind of bastion, pierced with an entrance-way surrounded by slender minarets, protects each of these gates. These fortifications are of the best period of Indo-Mussulman art, the reign of Shah Jehan, in the early part of the seventeenth century.

Within the walls the eye is shocked by long and ugly rows of barracks, built by the English upon their occupation of the town. In the inner court, however, there yet remains the great audience hall and the throne hall, with something of their ancient splendor. The latter is a vast kiosque of white marble, of perfect simplicity in its exterior, but of great magnificence in the interior decoration, its columns and arches and dome being adorned with arabesques in precious stones incrusted upon the marble. The sunlight striking upon these enchanting mosaics, seems to give life to the delicate wreaths of flowers of lapis-lazuli, of onyx and sardonyx and a thousand other gems. Tavernier, a French jeweller, who visited and described the palace of the Grand Moguls at a date when it was yet in all its splendor, tells us that the ceiling of this hall was covered with a tissue of gold and silver of elegant workmanship, which he estimates at a value of five million dollars. Heavy silk draperies, festooned with chains of solid gold, hung in the arched entrances, and in the



PALACE AND PARK OF THE GRAND MOGUL.

centre stood the marvel of marvels, the famous "peacock throne." This throne, of solid gold, measured six feet and three quarters in length and five in width, and formed a low, broad seat, the back of which represented a peacock's tail, glittering with enamels and precious stones; a canopy, also of massive gold, bordered with a long, thick fringe of fine pearls, and resting on twelve golden columns, covered the back of the throne, while the front was shielded by two immense parasols of velvet embroidered with pearls, having gold handles set thickly with diamonds. This masterpiece of jeweller's work was made by a French goldsmith attached to the court of the Shah Jehan, and is estimated by Tavernier to have cost thirty millions of dollars. In 1739 it was carried off from Delhi by Nadir Shah, the great Persian conqueror, and has probably long since been destroyed.

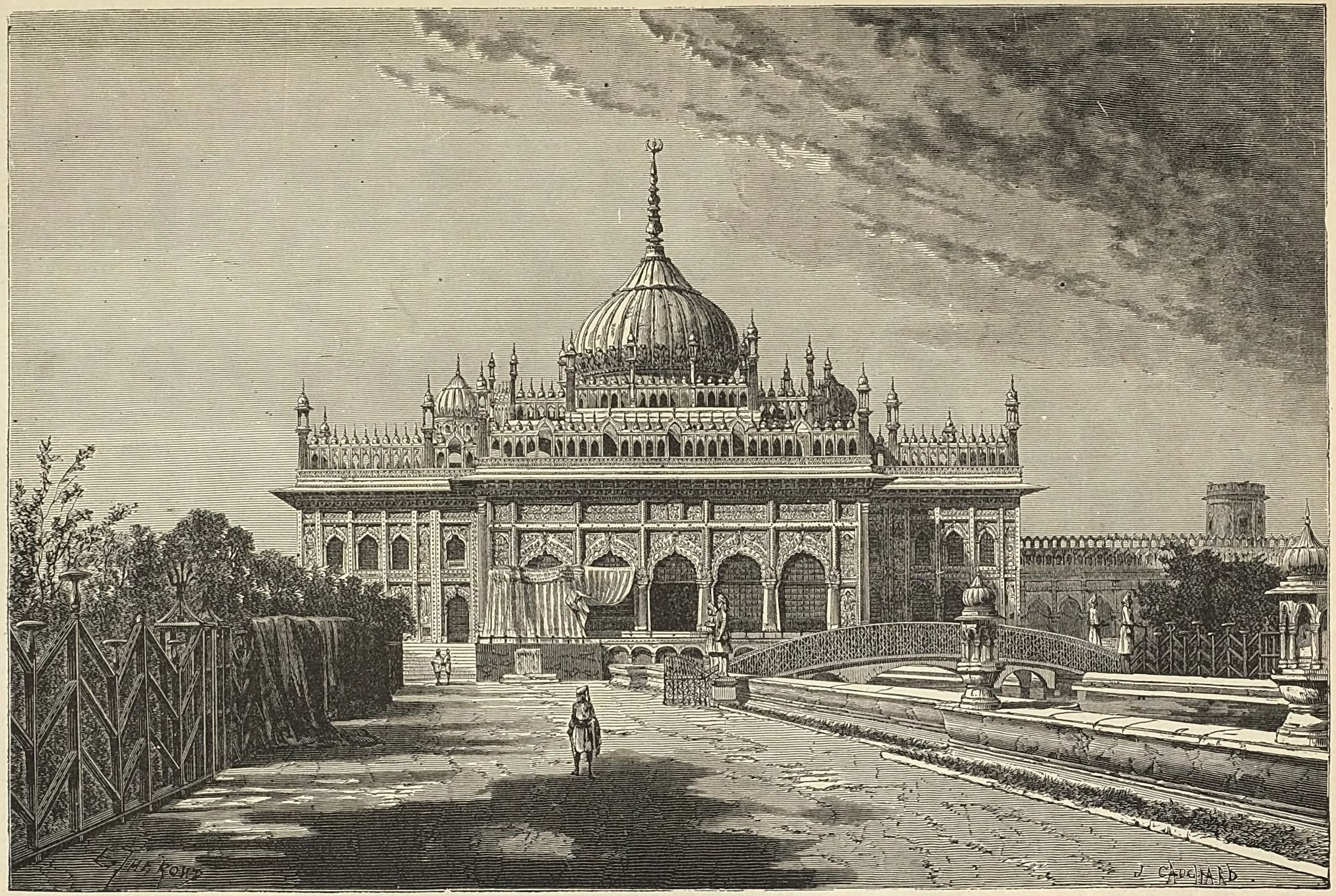
The imperial baths and the emperor's private mosque are still shown in the palace of Delhi, fine structures, and beautifully decorated with mosaics and carvings in marble and ivory. Between the various buildings which compose the palace extend vast spaces, once the fairy-like gardens so extolled by the Mogul poets, where now remain but a few forlorn trees, half buried under ruins. Although the English have taken away from Delhi its title of capital, and have even separated it from Hindostan by making it a dependency of the Punjaub, it is still considered by the native people as the capital of the north-west. No city rivals it in actual importance, unless, perhaps, Lahore. Its financial market is still the chief in Central Asia, and its bankers extend their correspondence into Arabia, Afghanistan, Thibet, and Turkestan.

Two hundred and eighty miles south-east from Delhi, and connected with it by railway, is Lucknow, one of the most beautiful of all the Indian cities. It is surrounded on all sides by a beautiful park, traversed by countless rivulets, and towers and minarets in every variety rise over the tree-tops, making a graceful and peculiar silhouette.

Within, the city does not disappoint the traveller. Its streets are broad and regular, bordered with rows of neat houses. Fountains surrounded by trees are abundant, and give the air a refreshing coolness. The inhabitants are picturesquely clad, and gentle in their manners, and the shops are uncommonly attractive.

Many of the public buildings are of remarkable beauty; one of the finest is the Housseïnabad Imambarra (see opposite page), a building erected for the celebration of the Mohammedan festival of the Mohurrum. It is resplendent with color and ornament, and makes a grand show under the blue sky of India; but it does not admit of being viewed too nearly, and the traveller will do well to content himself with admiration of the general effect.

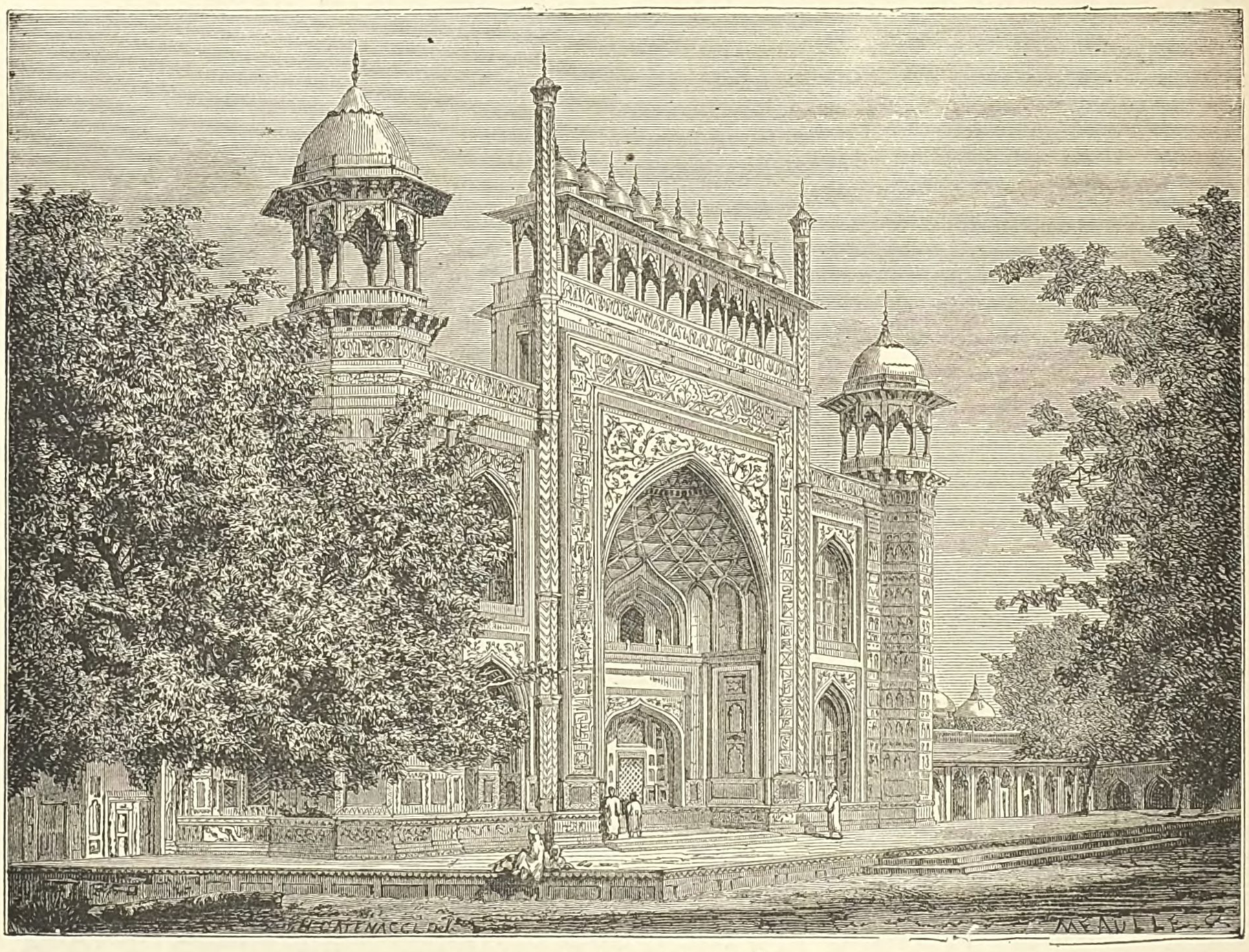
The city of Agra, though of far less antiquity than Delhi, and less beauty than Lucknow, is, in some respects, the most important point in northern India, being the



HOUSSEINABAD IMAMBARRA. LUCKNOW.

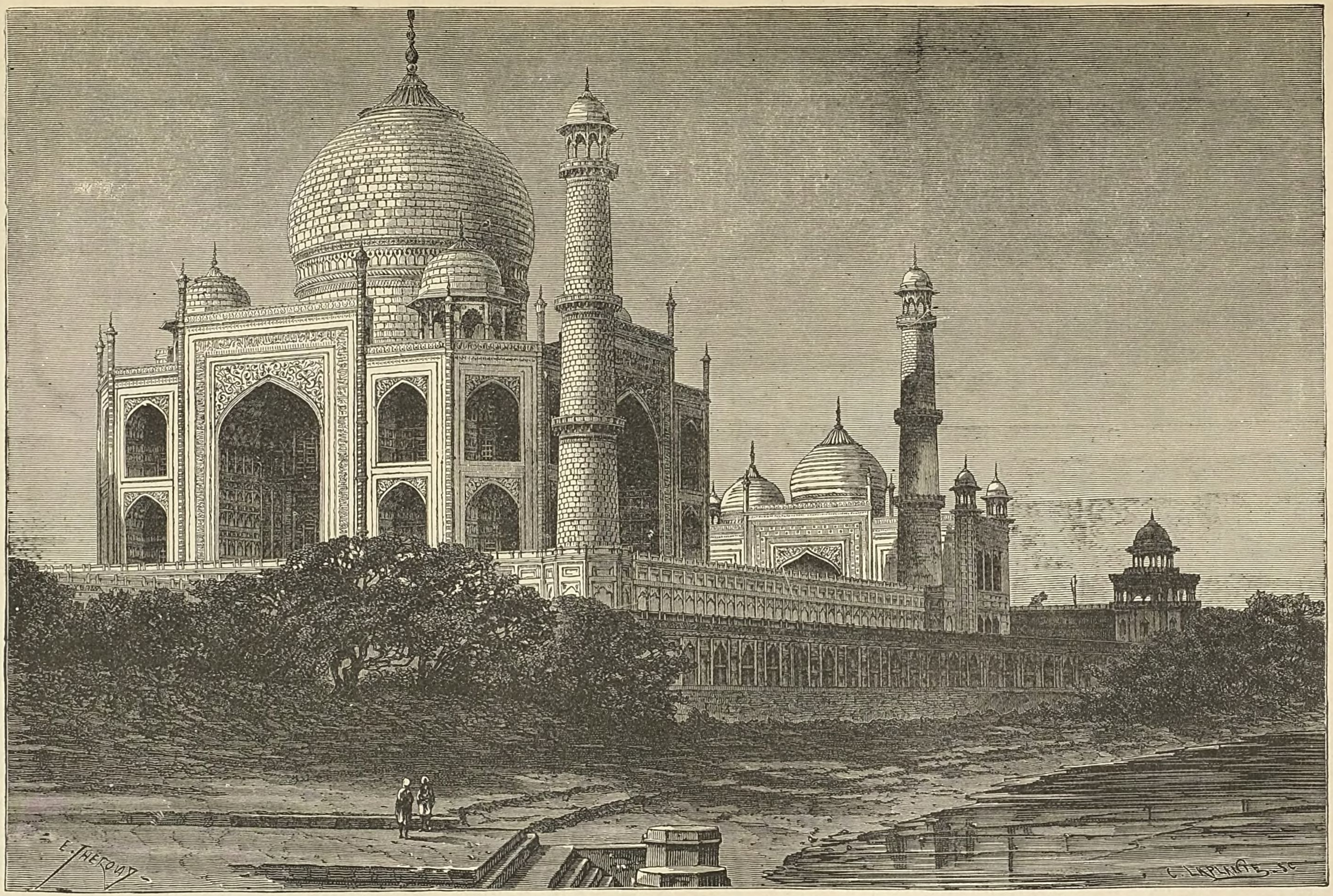
capital of the north-west provinces of Bengal, and the great commercial centre of all that part of Hindostan. It is situated on the right bank of the Jumna, a magnificent tributary of the Ganges, and is connected by railway with Bengal, the Deccan, and the Punjaub. But the greatest glory of Agra is the wonderful Tâj, a building erected by the Shah Jehan as a mausoleum in memory of his wife, concerning which all travellers agree in the opinion that it is the most beautiful edifice in the world.

The Tâj stands upon the river-bank, raising its gilded crescent to the height of two hundred and seventy feet above the water-level. It is surrounded on three sides



Garden-Gate of the Tâj.

by a walled garden of twenty-five acres in extent, having elegant pavilions at the four corners. The main entrance is through a magnificent Saracenic arch, eighty feet high, built of red sandstone, with panels of white marble which are covered with texts from the Koran inlaid in black marble. Passing under this arch, the Tâj itself appears, in its dazzling white splendor, at the extremity of a wide avenue of cypress-trees. Like a statue on its pedestal, the building stands on a vast platform of red sandstone surmounted by a superb marble terrace fifteen feet high, from each angle of which springs a marble minaret a hundred and fifty feet in height. The mausoleum itself is an irregular octagon, with flat roof, from which rises a great central dome



THE TÂJ. AGRA.

and four lesser ones, and the four main façades have each a lofty Saracenic arched entrance, flanked by two stories of deeply recessed windows.

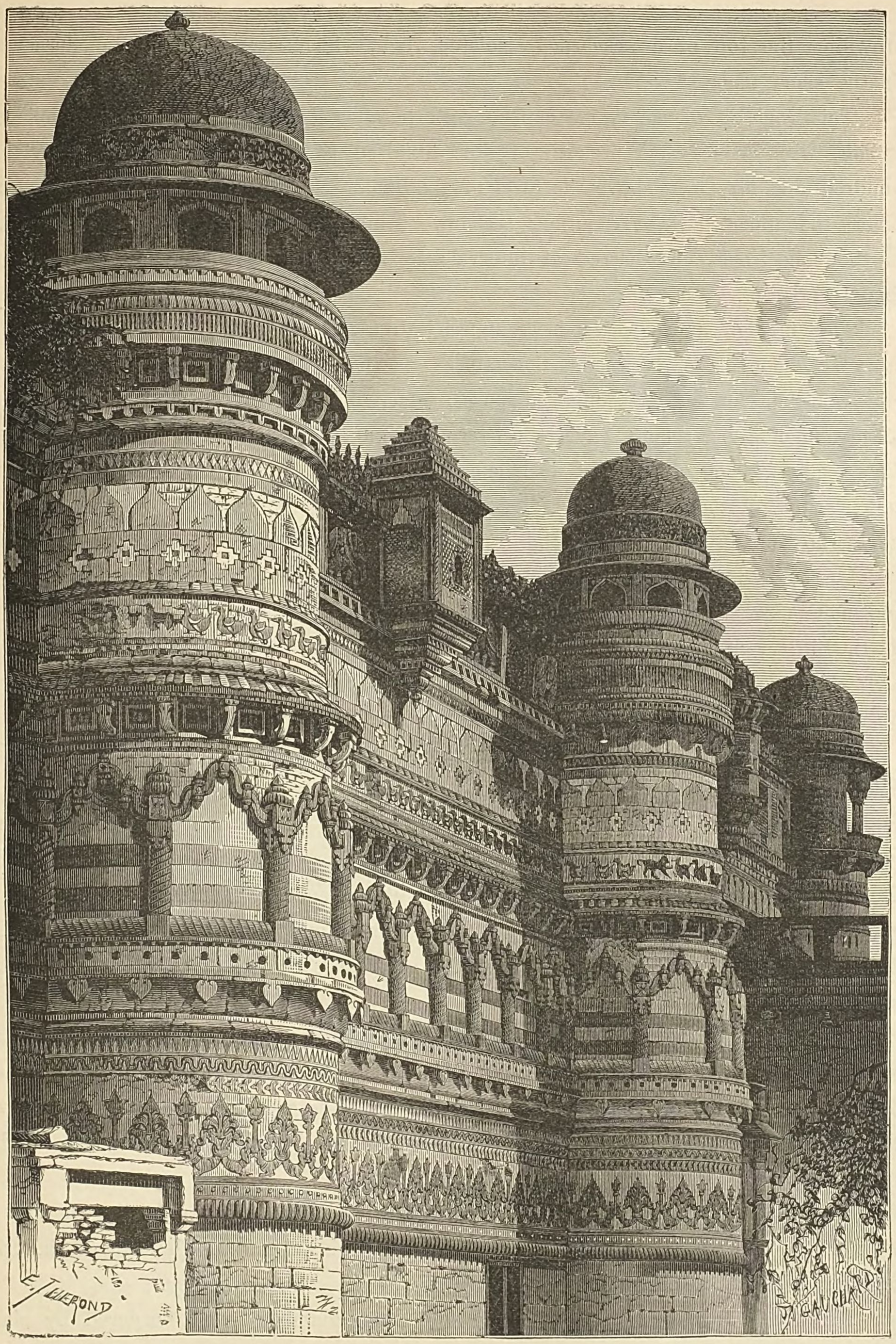
There is no part of the exterior, except the dome, which is not covered with arabesques and inscriptions in black marble upon the polished white of the surface, — in fact, it is said that the whole Koran is written there, — but it is done with so much taste that it adorns the architecture without crushing it. Bishop Heber says of the Tâj, "It was built by Titans and finished by jewellers;" and, in truth, no more finely carved casket ever came from the patient hands of Chinese artificer. Another English writer says, "Were there nothing to be seen in India but the Tâj, it would be, for an artist or an architect, sufficient compensation for the long voyage, for no pen can do justice to its incomparable beauty and its astonishing grandeur."

But the interior even surpasses the exterior in magnificence. The sarcophagus of the sultana is in a vault directly under the centre of the building, and near it that of the Shah. The tombs are of the purest white marble, the sultana's most elaborately ornamented with arabesques and texts in every variety of precious stones. Ascending to the main floor of the edifice, two duplicate sarcophagi are perceived, placed exactly above the real ones, and ornamented in the same style, but with more elaboration of details. They are protected by a marble screen eight feet high, of the most exquisite carving, a mere lace-work of stone, interwoven with stems and leaves of lotos, rose, and passion-flower.

This magnificent edifice was commenced in 1630, and finished in 1647, and during these seventeen years twenty thousand workmen were constantly employed upon it. The magnitude of the structure required a hundred and forty thousand cart-loads of red sandstone and Rajpootana marble, and every province of the empire contributed to its adornment, sending precious stones of which a list was preserved in the public archives. There was jasper from the Punjaub, lapis-lazuli from Ceylon, coral from Arabia, rock-crystal from Malwah, and onyx from Persia; Thibet sent her turquoises, Yemen her agates, Asia Minor her chalcedony, Colombo her sapphires, Punnah her diamonds. Notwithstanding these free gifts and the forced labor of the workmen, the total cost of this gigantic work was about twelve million dollars.

The Tâj has shared in the disasters of its city. The Jâts carried off its silver gates and its treasure; the Mahrattas injured the mosaics; an English governor, Lord Bentinck, even went so far as to propose to sell it for the value of its materials; but the Queen's government understood its duties better. All the damage has been repaired, the edifice cleansed and restored, and the gardens, enriched with rare plants, are kept up as carefully as in the time of Shah Jehan.

South from Agra, and about sixty miles away, there exists a wonderful group of buildings belonging to a period nearly a thousand years earlier than that at which the Tâj was erected. They are the remains of the ancient city and fort of Gwalior,



FAÇADE OF THE PALACE. GWALIOR.

crowning the top of an escarped, isolated rock, which rises above the modern town of the same name.

This rock is of sandstone capped with basalt ; its greatest length is a mile and a half, with an extreme breadth of nine hundred feet, and a height of nearly three hundred and fifty feet above the level of the plain. Its face is perpendicular, at some points the upper part overhanging the lower; and the ascent is by a steep road cut in the solid rock, and barred at intervals by five gates as formidable as those of a feudal fortress.

The first of these gates is a superb Moorish triumphal arch, crowned with a story of colonnettes. Passing beneath it, the traveller enters upon the road, wide and well-kept, but of fatiguing steepness. Here begins for the archæologist a series of monuments, bas-reliefs, caverns, cisterns, ranged along the road as in a museum. The rocky wall on either side also demands attention ; it is excavated into numberless cells, many of them containing altars and statues, a reminiscence of the early hermits who sheltered themselves here. Between the third and fourth gates are vast reservoirs for water, and here the sides of the road are covered with bas-reliefs of enormous size. Beyond the fourth gate is a little monolithic temple, believed to be of the fifth century. It consists of a square chamber with a peristyle in front of it, and is surmounted by a pyramidal spire. The upper part of this spire has been broken off, and is replaced by a little dome of masonry.

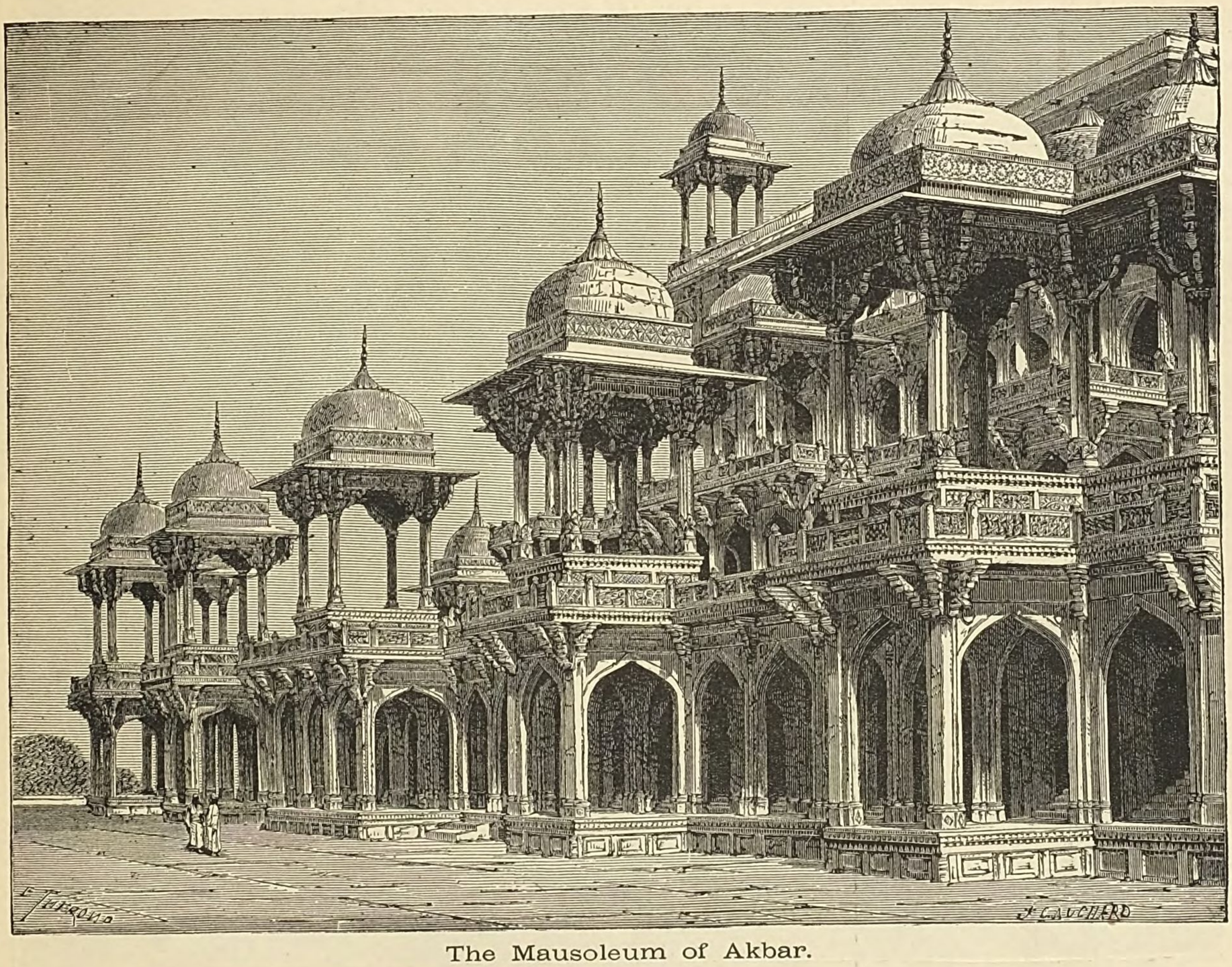
As we reach the crest of the rock, the magnificent façade of the Palace of King Pâl (see page 183) rises before us. It is really a great dead wall, relieved by turrets at regular intervals, the only windows being in the very tops of these turrets; but bands of carved decoration, rows of arches, and a profusion of enamelled figures of every description, — Brahmins, elephants, peacocks, candelabra, in blue, brown, green, and gold, — give it an incomparable lightness and elegance. The bricks which form this ornamentation have a brilliancy of color and delicacy of shading from which ten centuries have taken nothing away.

Besides this palace there are two important temples in this ancient city, and many chapels; and the rock itself on which the city stands is cleft by a remarkable fissure, a hundred feet deep, whose perpendicular walls are lined with figures of every size, from the one ten or twelve inches in height up to the colossus of sixty feet. These statues have historical and religious significance.

Returning to Agra, we suppose the traveller to follow a route leading nearly due west as far as Ambeer, thence in a southwesterly direction through some of the tributary states of Western India, and coming out to the sea at Bombay.

An hour's drive from Agra, along a fine macadamized road, bordered by shade-trees, and curious old tombs surmounted by figures of horses in red sandstone, brings us to Secundra. This village, insignificant in itself, is held in high honor by Mus-

sulman and Hindoo, throughout all India, as the place where repose the remains of the Emperor Akbar, the greatest native sovereign of the peninsula. The Mausoleum stands in the centre of an immense and very beautiful garden on the bank of the Jumna. The building itself, which rests upon a platform of white marble four hundred feet square, is in the form of a pyramid, and consists of five stories. The four lower ones are of red sandstone, the upper of polished white marble. The first four stories are surrounded each by a row of elegant kiosques of red sandstone, and the upper story by a wall of white marble elegantly carved. Upon the upper floor, in broad daylight, is the state sarcophagus, around which the crowd gathers to pray, — a superb



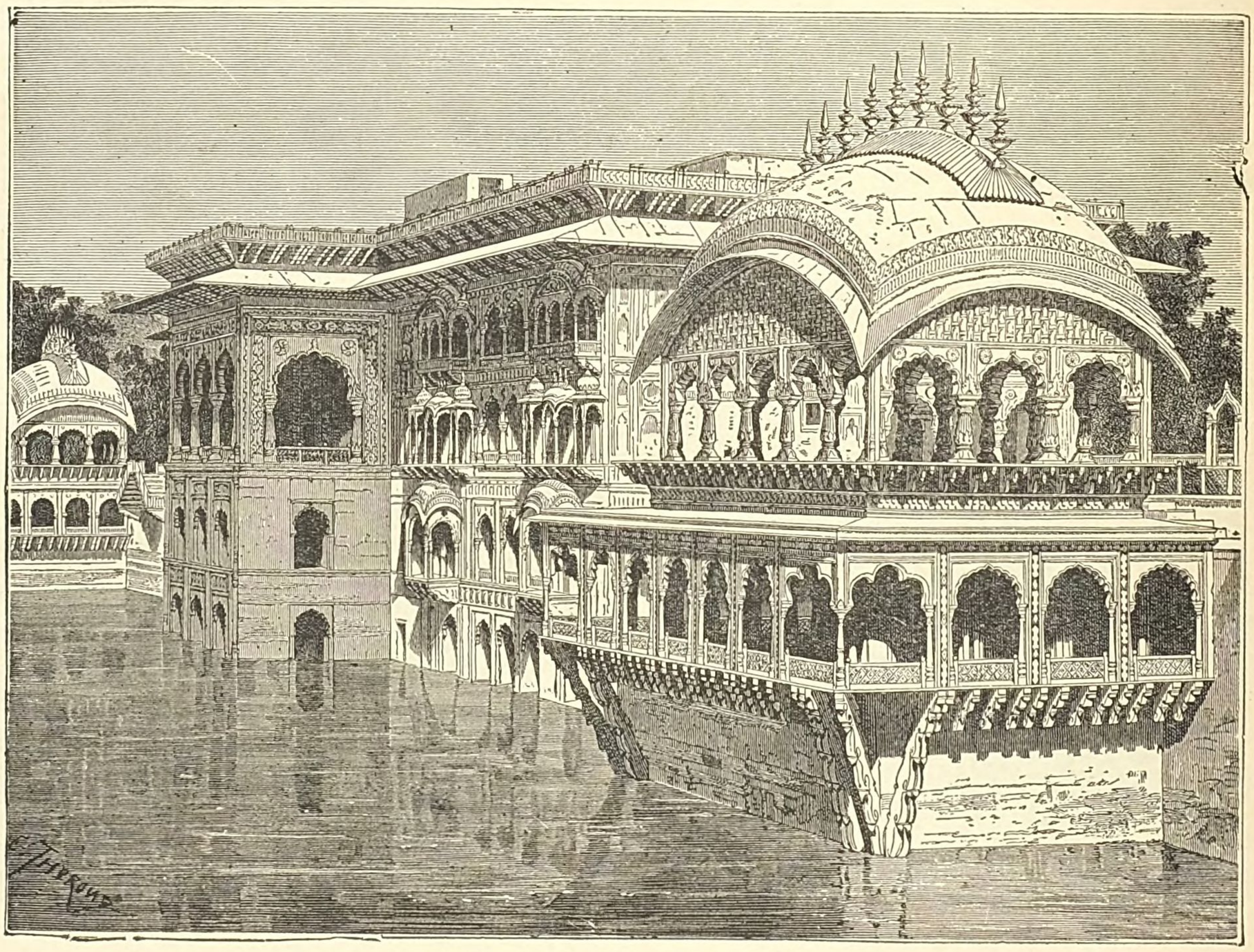
The Mausoleum of Akbar.

parallelogram of white marble, a masterpiece of carving, upon which are inscribed in relief, amid a very network of arabesques, the ninety names by which the Mussulman religion calls upon God. The real sarcophagus, in which the emperor was buried, lies in a crypt beneath the centre of the building, bearing a single Arabic inscription upon its lid.

This mausoleum is the work of many reigns. Its foundation was laid by Akbar; his son, Jenanghir, added the stories in red sandstone, and Shah Jehan surmounted the edifice with its crown of marble. It thus stands as an admirable illustration of the most brilliant period of Indian architecture.

Three days' journey westward, across the rich English province of Agra, is the ancient city of Dîgh, which claims to have been a capital fifteen centuries before the beginning of the Christian era. It is now the second city in the Jât kingdom of Bhurtpore; and in 1803, its superb fortifications, erected by King Souraj-Mull about a century before, enabled a few French officers in the service of Scindia, the Mahratta prince, to hold in check Lord Lake's victorious army after the battle of Laswari. This same monarch constructed, about 1725, a splendid palace, regarded as the best instance of modern Hindoo art. It is composed of many detached pavilions surrounded by a fine garden, and situated between two small lakes, outside the walls.

The principal edifice is the Gôpal Bhowan, built upon a high terrace on the



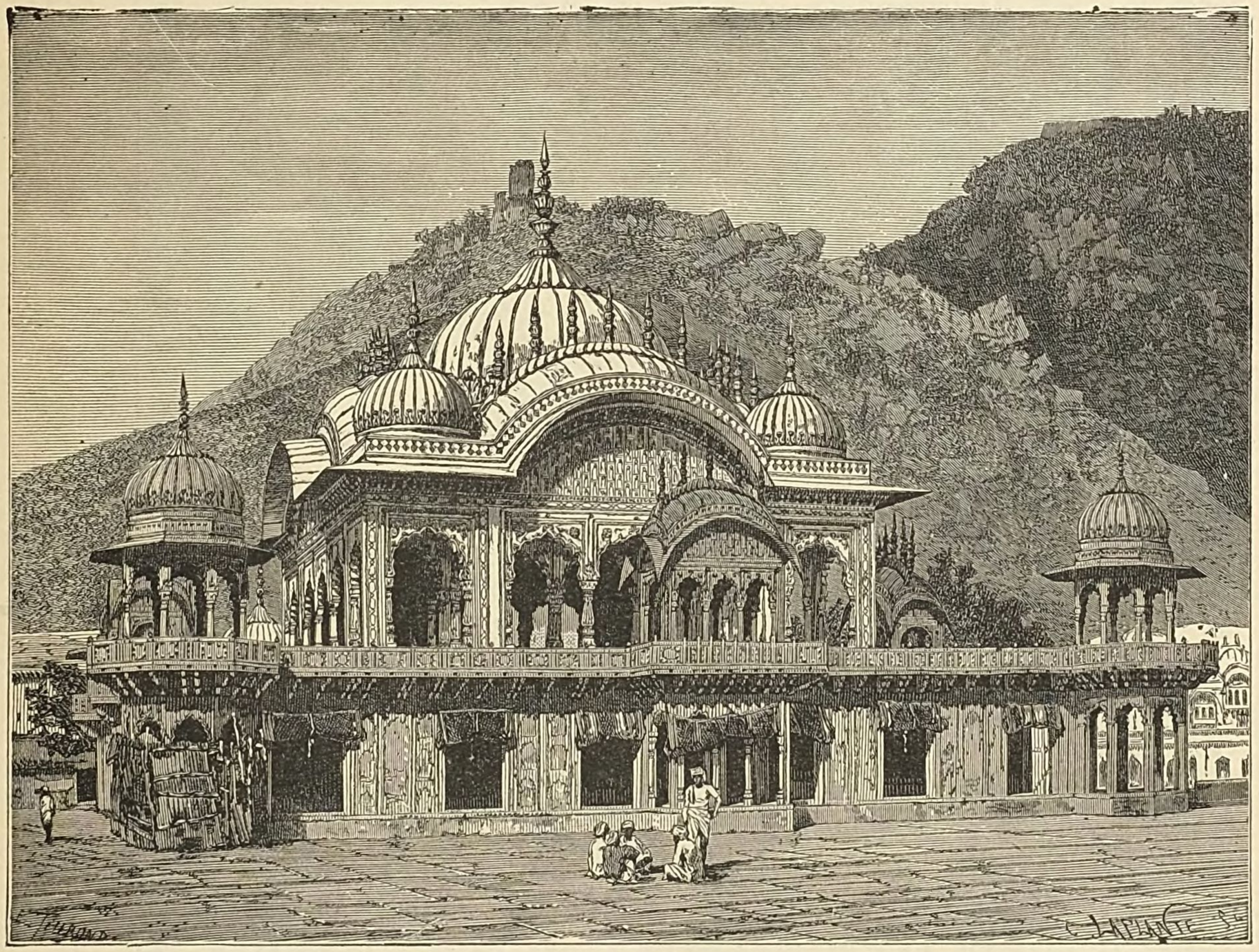
Palace of Côpal Bhowan.

shore of the western lake. Its water-front, which we present here, is very elegant, with its balconies and colonnades, and the two marble kiosques that make the angles. The garden is filled with orange and other fruit-trees, and its shady avenues are paved, and bordered by canals for irrigation.

Leaving Dîgh, the traveller for a while finds himself in the midst of desolate, stony plains, without any redeeming feature of beauty in the landscape. He soon, however, enters upon the mountain region of Mewat, and the approach to Ulwur,

the capital of the little kingdom, is most picturesque. The city lies upon a low hill, crowning its top with palaces, and around it is an array of higher summits of singular outline and imposing height. Over all these hill-tops runs the chain of forts and bastions and walls which defend the town, while their slopes are brilliant with the richest vegetation.

There are two beautiful palaces, but, as is usual in these Indian cities, a mausoleum of some famous prince is the finest building of all. The illustration which we give below represents that of the Rajah Buktawur Sing, a work of the last century. It is entirely of marble, resting on a pedestal of red sandstone, and is

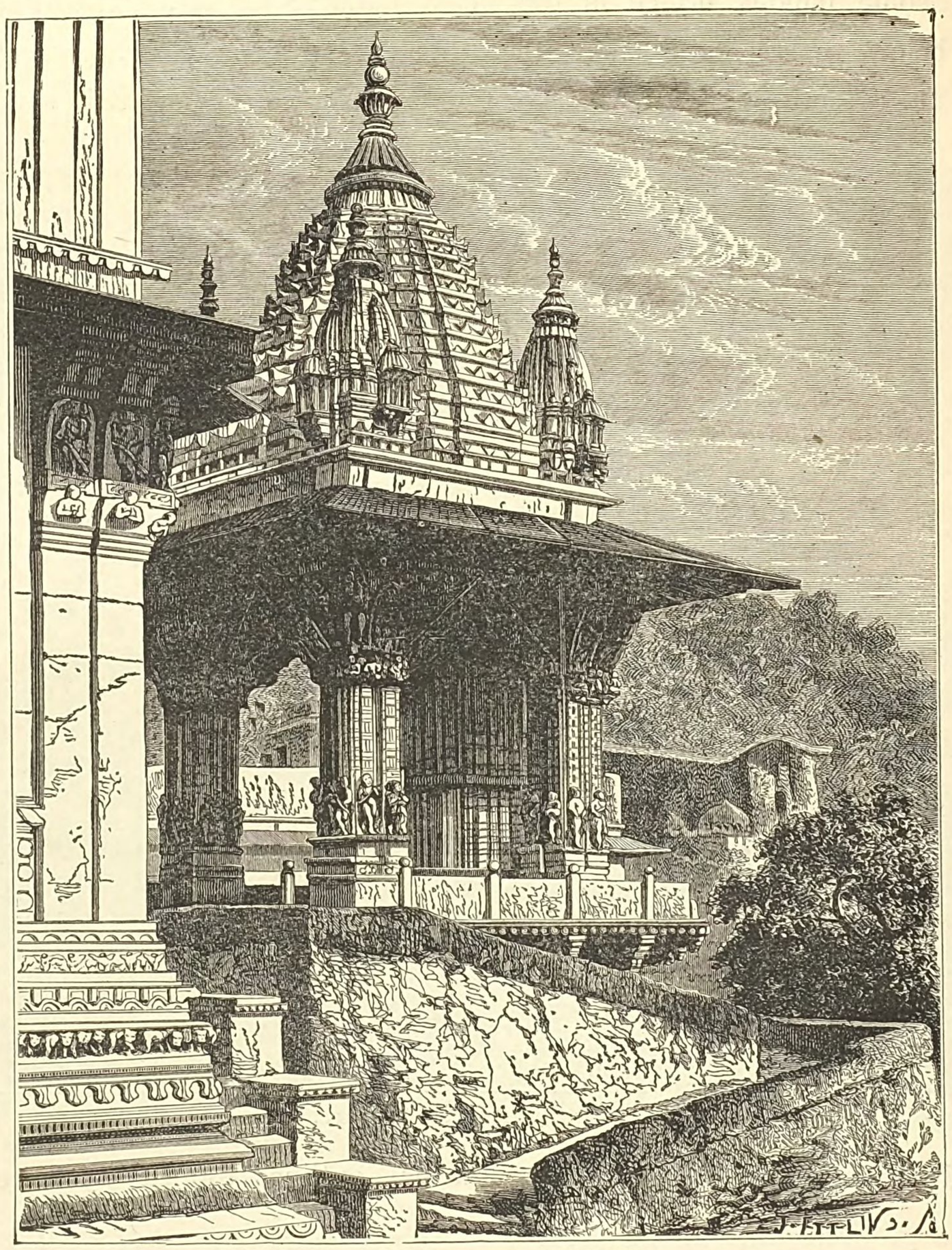


Mausoleum, Ulwur.

surmounted by a dome of somewhat unusual outline, topped by a massive stone pinnacle.

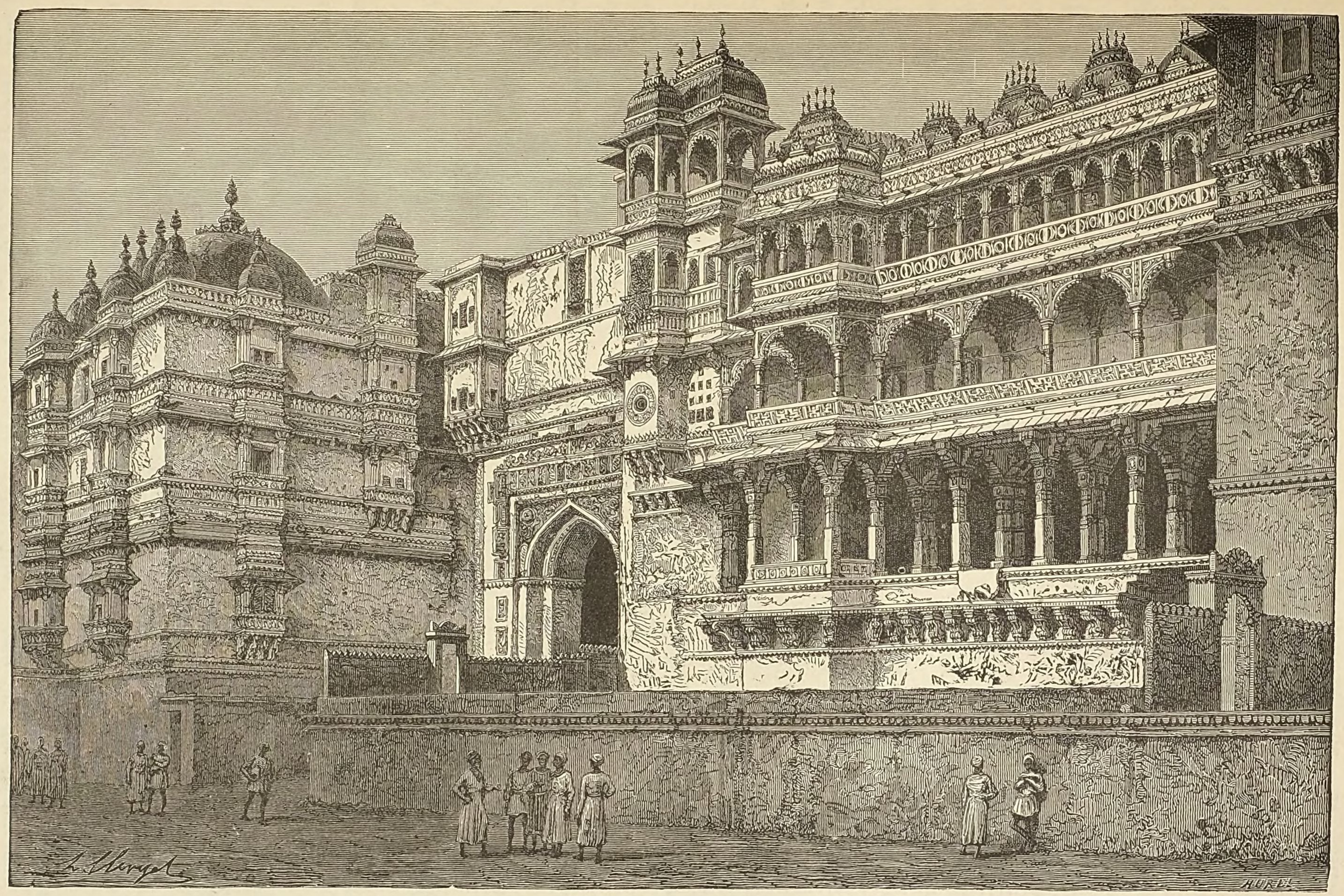
A journey of ten days, on horseback or on camels, through a delightful and varied country, brings us to Ambeer, the ancient queen of the mountains, founded by the Minas, the great aboriginal race of Upper India, and for many centuries their capital. Approaching Ambeer the road climbs a hill, winds through a dense wood, and suddenly coming out into open ground, reveals the mysterious valley lying far below. Let the reader imagine a deep crater whose sides are lined with a dense

and gloomy jungle; in the centre a cone of verdure, serving as pedestal to a marble palace, fairy-like and radiant, before which would pale all the marvels of Granada or Seville; all around this cone, a silent and deserted city, of which the meanest house is itself a palace; and lastly, a lake with blackish waters. Such is the first effect of Ambeer; but what is indescribable about it is the sensation which comes over the traveller, after a few minutes' contemplation. Nothing so romantic, so mys-



Golden Kiosque, Ambeer.

terious was ever seen before; you ask yourself if it be not a dream from the Arabian Nights, and whether some one will not come suddenly to disturb the silence of this sleeping city, and cause some frightful mystery to spring from it. The palace especially has something supernatural about it; the domes covered with plates of gold and of blue enamel, the turrets of marble of an ivory-yellow, the walls decorated with gilded balconies: surely this is the Palace of Scheherazade.



COURT OF THE PALACE. OUDEYPOOR

We add with regret that the sole inhabitants of this region of fairy-like magnificence are tribes and legions of the great *hunouman*, the largest of the Indian monkeys!

Between Ambeer and Bombay, the city of chief importance is Oudeypoor, the capital of Meywar, one of the states tributary to the British government, but retaining a native sovereign, called the Maha Rana, and known in his own domains by the imposing title "The Sun of the Hindoos."

The first view of the city is very striking, as the traveller approaches it. In the foreground a long line of forts, pagodas, and palaces is relieved against a forest of gardens, behind which rises the city, a curious mass of towers, steeples, and kiosques, ascending a pyramidal hill; the summit bears a marble palace, shining white against the blue background of the hills. Neither pen nor pencil can give an adequate idea of the beauty of this city, so well named Oudeypoor — "the City of the Rising Sun." Closely built up to the city walls are an extensive group of suburbs, where every hillock is covered with luxuriant gardens, adorned with kiosques and fountains. Entering by a gateway flanked with bastions, we find ourselves on the edge of a magnificent bazaar. The houses are all built of stone, with flat, terraced roofs; the shops are situated under arcades that border the street on each side, and have a neatness and regularity of aspect almost unknown in Oriental cities.

The Palace of Oudeypoor, the largest and most magnificent in India, covers the entire crest of the hill which rises in the centre of the city, and the natural extent of the ground not being sufficient, the Hindoo architects increased it by throwing out from one side of the hill an immense terrace, supported on three tiers of arches: this work is of such solidity that part of the palace rests on this "made land," and the remainder of it is inclosed as a great court-yard, containing barracks and parks of elephants. Two walls inclose the mass of buildings composing the palace, of which the entire length is more than two miles.

The principal entrance is from the side of the city, — a beautiful marble gate, with three archways, crowned by an attic of extreme richness; the panels, balconies, and domes are covered with decorations in exquisite taste, and without any introduction of idols. Within is the grand court-yard, on two sides of which are the royal apartments; the walls are ornamented with galleries at each story, and the angles are occupied by octagonal towers, surmounted by cupolas.

The height of the palace is a hundred and twenty-three feet, but the dazzling whiteness of the marble of which it is entirely composed, and the grand simplicity of the architecture, augment its proportions, and would lead one to believe it double its actual size.

The interior of the palace harmonizes with the stately façades, and is well suited to the requirements of a tropical climate; dark corridors, with gentle inclination, take

PROCESSION OF A MAHRATTA PRINCE.

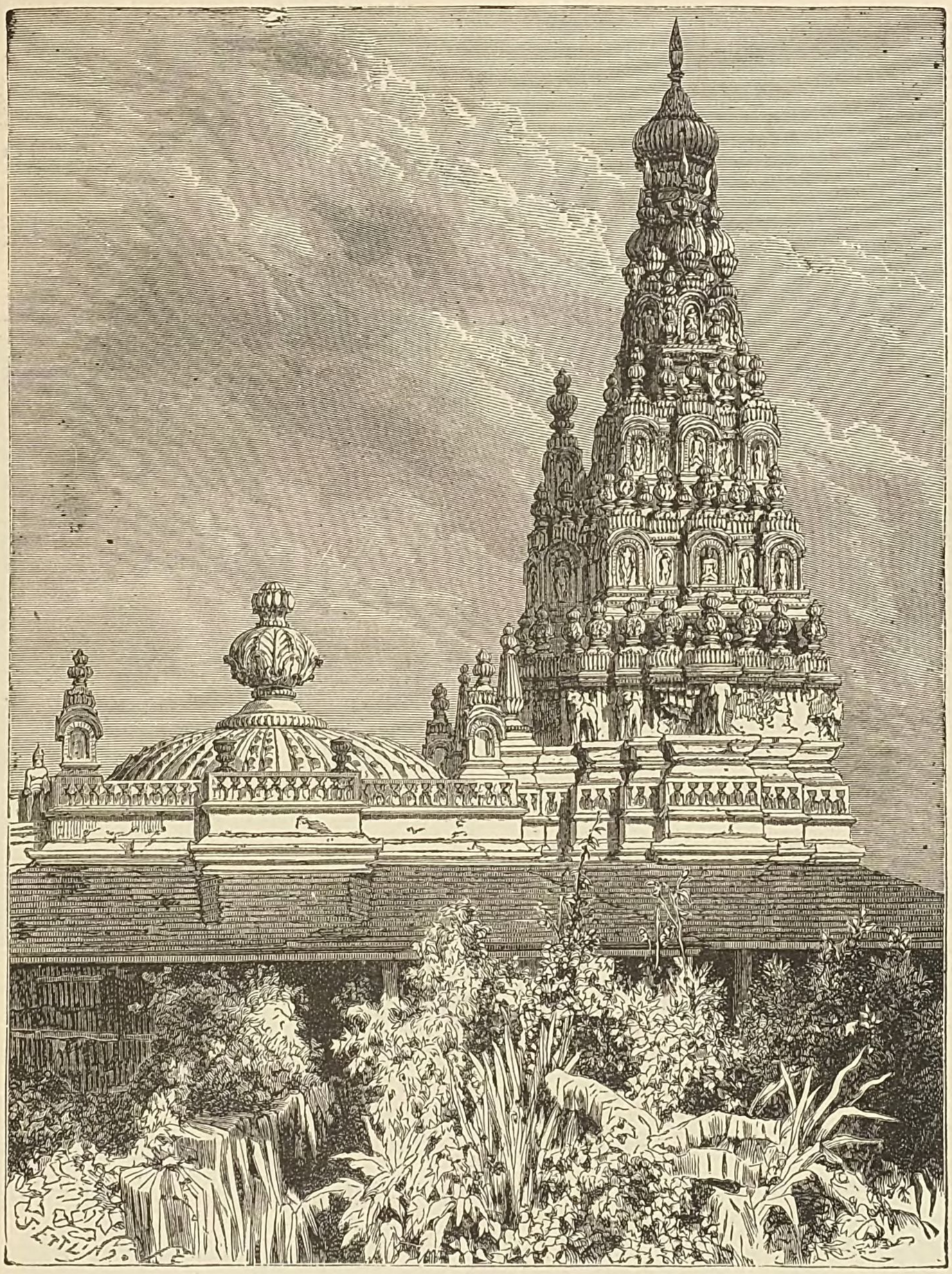
the place of stairs, leading from story to story; the large, well-lighted apartments have walls and floors of marble; there are court-yards and fountains and flowers at every turn. The great halls are hung with draperies; soft cushions and rugs cover the floors, and the walls glitter with mirrors and brilliant frescos. One of the rooms is decorated with an odd kind of mosaic, which makes the visitor smile, but is really no more absurd than the porcelain salons of Fontainebleau and other French palaces: its walls are covered with European plates and cups and saucers, the commonest crockery side by side with the most expensive Dresden, — a two-penny salt-cellar with a vase of Bohemian glass. Little did the Hindoo artist care what his materials cost; he looked only to the colors of them, and contrived to obtain from this heterogeneous mass certain original and graceful effects. The frescos in many of the rooms are of great interest. They contain portraits of all the Ranas or sovereigns of Oudeypoor, and scenes of importance in the reign of each. Painted with care and with a remarkable skill in the use of color, they are valuable memoranda of the history and manners of this Indian race.

The illustration (p. 191) represents one of those military processions, seen frequently in the west of India, where some Mahratta prince appears before his subjects with a splendor unknown elsewhere in the world. The display commences with the native troops commanded by European officers, then the Arab corps, the squadrons of Mahratta cavalry, the field artillery, the musketeers, the cannoneers mounted on dromedaries, and many thousand troops to swell the procession to as great length as possible. Then comes the royal standard-bearer, mounted on a superb elephant painted and covered with embroidered housings; the man bears a flag of cloth of gold forty feet in length. Around him are a body of picked cavalry, specially charged with the defence of the standard. Armed with long lances and curved sabres, they are clad with extreme richness; their coats of crimson velvet, tight-fitting trousers, and pointed shoes, form as perfect a knightly costume as could be imagined. Some of them wear a light steel morion and Saracenic coat of mail; others have heavy cuirasses of buffalo-skin richly ornamented. The tips of their lances are silvered, and their bucklers of rhinoceros-skin decorated with golden bosses.

After them follow an immense drum-corps, with instruments of every size and form, more agreeable to see than to hear; and then the nobility of the kingdom on prancing horses, surrounded by their servants carrying banners, and by heralds loudly proclaiming the importance of their respective masters. To them succeed the high officials of the kingdom, ministers, high-priests, and courtiers. Each one of these personages is seated upon an elephant, whose gold-fringed covering reaches to the ground. Twenty or thirty elephants, proud of their adornments, thus defile, with grave and majestic air; most of them have trunk and forehead painted with fantastic designs, and wear on the head tall aigrettes of white plumes. Each dignitary

sits cross-legged in a superb houdah, and over him is held a splendid parasol, which, by its degree of richness, indicates his rank at court.

Lastly comes the prince himself, preceded by his family, his sons and daughters seated upon elephants. The prince's houdah is of solid gold, sparkling with gems. Dressed in crimson velvet and sparkling with diamonds, he sits on his embroidered



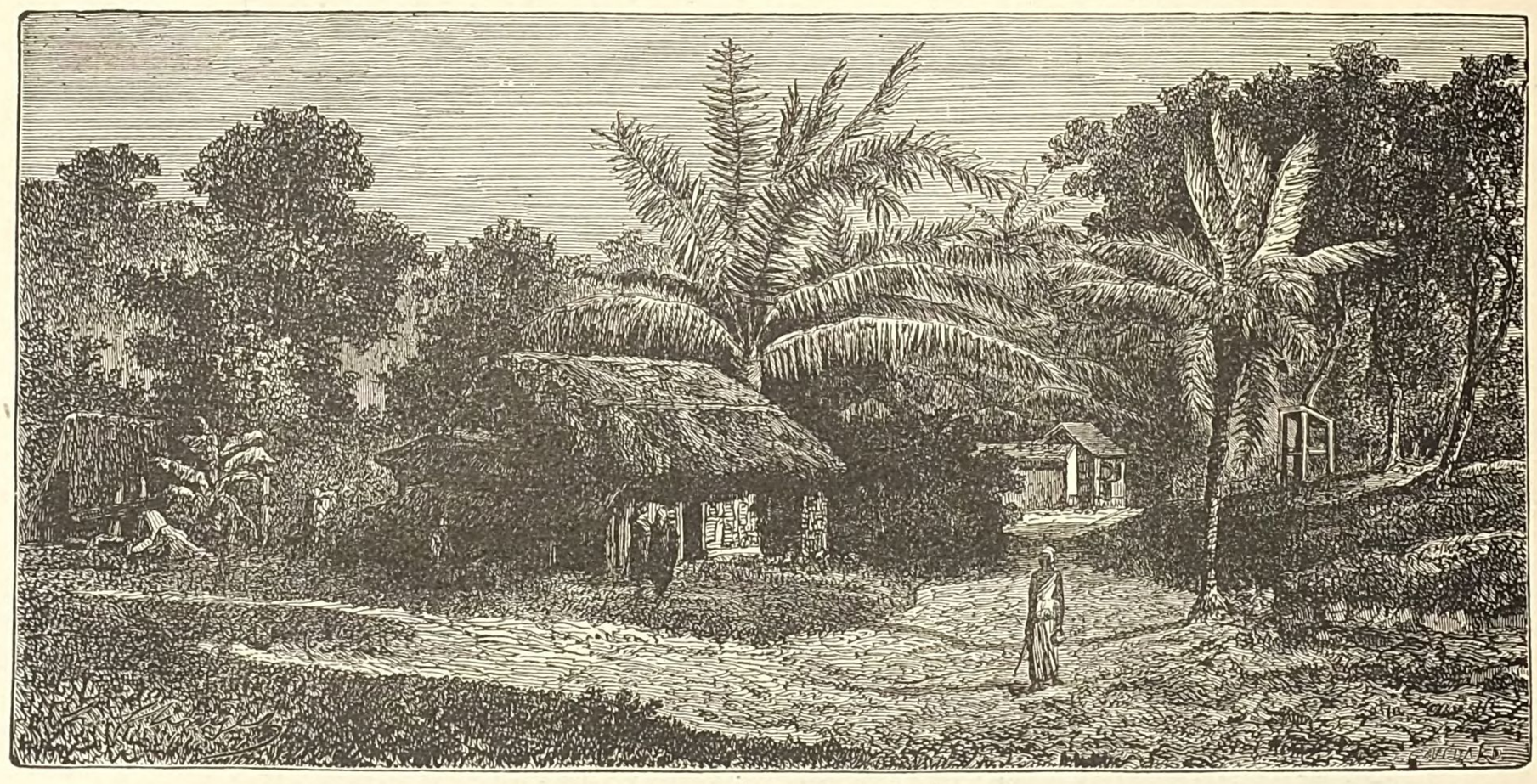
Pagoda. Bombay.

cushions, and behind him is his principal minister, in costume as brilliant as his own. On each side of the elephant two men stand on the steps of the houdah waving peacock fans. One of the four is the royal herald, who displays a flag, and proclaims the dignity and valor of his master. The crowd falls prostrate as the elephant passes by. The animal, almost hidden under his trappings, seems like a mountain of gold and diamonds seen through the perfumed smoke of the censers borne

before him, and the man in whose honor this parade takes place, sits aloft with impassive face and folded arms, most like the Hindoo conception of Divinity.

A short distance west of Oudeypoor the traveller strikes the railway of the west coast, and in a few hours reaches Bombay, the most cosmopolitan city of India. The diversity of race among the inhabitants of Bombay is at once apparent. Besides the Hindoos, the sons of the soil, and the English, its conquerors, there is the Arab wrapped in his burnous, the Persian in black garments, with tall Astrakan cap, the Jaïnes and the Banyans with odd-shaped turbans, the Bhoras and Khodjas, the Abyssinians with negro features, the long-robed Armenians, the Jews, the Parsees with their black mitres, the Scindes with square cap, and many others less easily recognized at sight.

Differing from each other in religion, it may well be supposed that the people



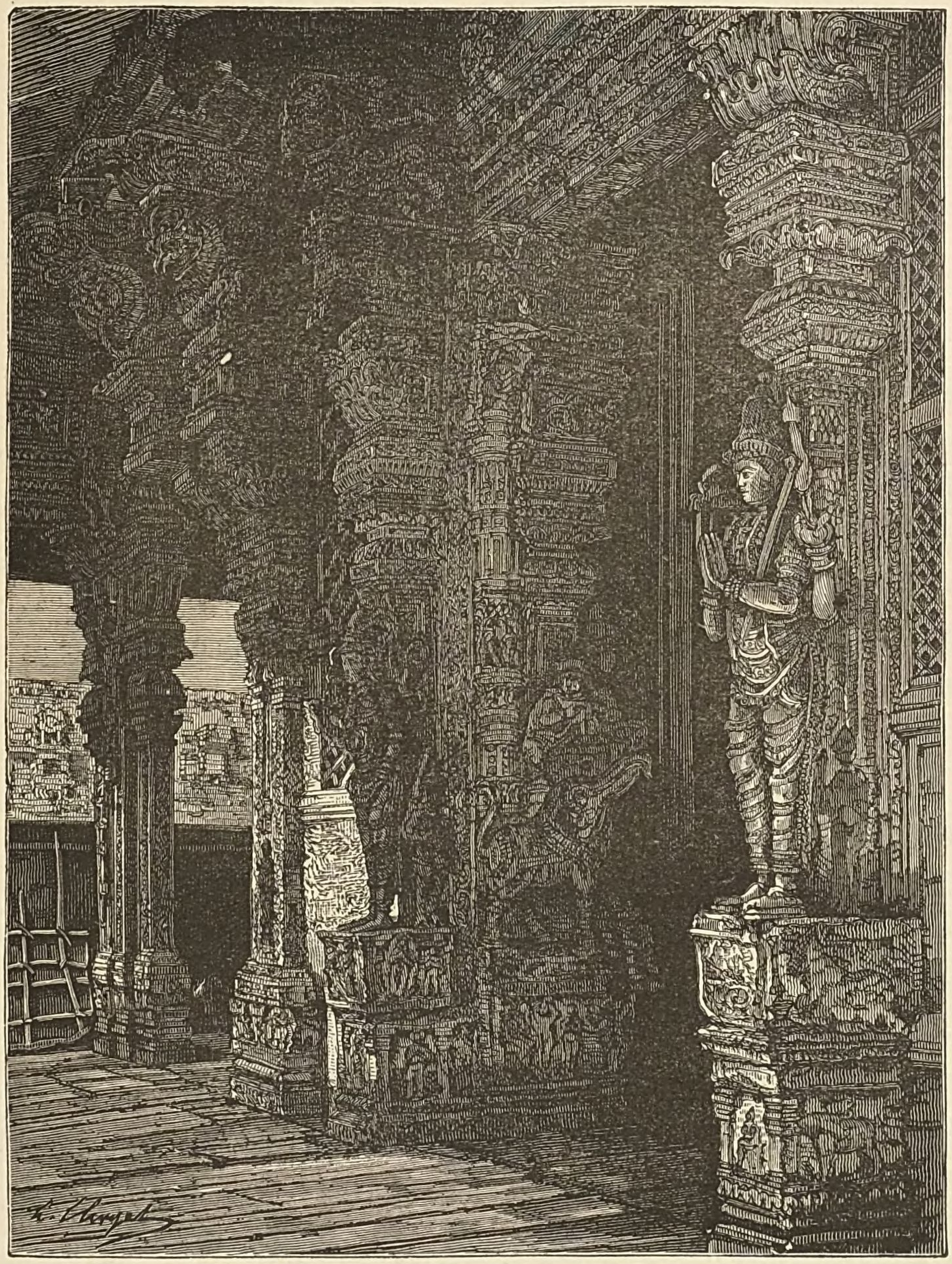
Native Cottages in Ceylon.

of Bombay have their crowd of places of worship. The city is the residence of an English bishop, and a Roman Catholic vicar, and it contains numberless Parsee temples, where the sacred fire burns day and night. There are also Hindoo pagodas, of which the one represented on page 193 has the chief claim to our admiration. But of all the great Indian cities Bombay offers least to the traveller in search of the picturesque.

A sea-voyage down the Malabar coast in one of the English steamers which ply between Bassorah, at the head of the Persian Gulf, and Singapore, the most southern port of the Malay peninsula, touching at the principal ports on the route, is a very agreeable and interesting journey. One never wearies of admiring the beautiful hills covered with dense forests, which succeed one another along the coast, —the low ground laden with the most luxuriant crops whose brilliant green con-

trasts with the blue water of the Arabian sea, — and the little towns, with their white houses against the dark background of the wooded slopes.

A brief delay in the open roadstead of Colombo, the capital of Ceylon, affords time for a short excursion into the country, where vegetation has all the luxuriance of the tropics, and several varieties of palms subserve to almost all the wants of the natives, whether in food, clothing, or lodging. (See page 194.)



Interior of the Pagoda. Madura.

On the eastern side of the great Indian peninsula is the region formerly known as the Carnatic, extending from Cape Comorin to the river Kistna. This is now included in the presidency of Madras, the portion of India most purely Hindoo and Brahminical, and it is here that we find the chief examples of a kind of architecture known to ethnologists as the Dravidian, and familiar to us as the "pagoda style."

These temples consist almost invariably of four parts: the central structure, usually small and unimportant, in which the image or emblem of the divinity is placed; the porches, or *mantapas*, leading to this cell; the gate-pyramids, or *gopuras;* and the pillared halls, or *choultries*, used for various purposes, which are often of vast dimensions. Besides, there are always tanks of water used for sacred purposes, and usually many dwellings of priests, in the immediate neighborhood of the temple.

The character of the Dravidian races is far inferior to that of the Aryan, and their religion has always been a degrading fetich-worship. They had no intellectual or moral aspirations to express in their sacred buildings, and offered to their divinities only a tribute of patient and minute toil. "To cut a chain of fifty links out of a block of granite," says Fergusson, "and suspend it between two pillars, was with them a triumph of art. To hollow deep cornices out of the hardest basalt, and to leave all the framings, as if of the most delicate woodwork, standing free, was with them a worthy object of ambition, and their sculptures are still inexplicable mysteries, from our ignorance of how it was possible to execute them. All that millions of hands working through centuries could do, has been done, but with hardly any higher motive than to employ labor and to conquer difficulties, so as to astonish by the amount of the first and the cleverness with which the second was overcome — and astonished we are; but without some higher motive, true architecture cannot exist. The Dravidians had not even the constructive difficulties to overcome which enabled the mediæval architects to produce such noble fabrics as our cathedrals. The aim of architects in the Middle Ages was to design halls which should at the same time be vast and stable, and suited for the accommodation of great multitudes to witness a lofty ritual. In their struggle to accomplish this, they developed intellectual powers which impress us still through their works. No such lofty aims exercised the intellectual faculties of the Hindoo. His altar and the statue of his god were placed in a dark cubical cell wholly without ornamentation, and he thought he had accomplished all his art demanded when he covered every part of his building with the most elaborate and the most difficult designs he could invent. Much of this ornamentation, it is true, is very elegant, and evidences of power and labor do impress the human imagination often even in defiance of our better judgment, and nowhere is this more apparent than in these Dravidian temples. It is in vain, however, that we look among them for any manifestation of those lofty aims and noble results which constitute the merit and the greatness of true architectural art. In nine cases out of ten these buildings are a fortuitous aggregation of parts, arranged without plan as accident dictated at the time of their erection."

At Madura, near the southern extremity of the peninsula, is a pagoda of great size, remarkable as containing the most beautiful *choultry*, or pillared hall, in all the Presidency. It was commenced in 1623, and finished in 1645, at an expense of more

than five millions of dollars. It is entirely of stone, three hundred and twenty feet long, eighty feet broad, and twenty feet from pavement to roof, which latter is formed of granite blocks resting upon the pillars. The hall consists of a nave and two side aisles, and the effect of these three great galleries is really superb. All the way down the nave, besides bas-reliefs and arabesques with which each column is loaded, the statues of Indian monarchs are detached in full relief from each, and the capitals are carved in representation of gigantic animals with fierce and menacing air, who seem ready to spring upon the offender who dares enter these sacred precincts. The illustration (page 195), drawn from a photograph, exhibits the entrance to this wonderful hall.

If the temple at Madura contains the most elaborate ornamentation of any in southern India, that of Seringham (page 199) is unquestionably the largest and most harmonious. The outside wall of the inclosure measures twenty-four hundred and seventy-five feet by twenty-eight hundred and eighty feet. There are ten great pyramidal gates, or *gopuras*, and if the temple had been finished there would have been twenty, that is, four in each of the five concentric walls surrounding the small domed building which is regarded as the sanctuary. The date of this structure is surprisingly recent, work on it having been stopped by the ten years' struggle between the English and French for the possession of Trichinopoly (1750–60). If we allow fifty years back of this date for the commencement of the building, we still bring the whole within the limits of the eighteenth century.

Between the first and second walls, Hindoos of inferior caste are allowed to reside; within the second inclosure none but Brahmins are permitted ; within the third are certain families of priests of Vishnu ; within the fourth are various small temples and *mantapas*. One of these, called the thousand-columned mantapa, has sixteen columns in front and sixty-five in depth. They are spaced evenly ten feet apart from centre to centre, and as the hall is only from ten to fifteen feet high, it will be seen what a remarkable instance this is of misapplied labor. Each pillar is, however, a monolith, and they are all carved more or less elaborately, so that there is after all something very impressive about this wilderness of stone. The central inclosure, where rests in eternal slumber "the blue god," Vishnu, is forbidden to ordinary mortals. The sanctuary in which he reposes is small and low, and surmounted by a dome of gilded copper. Within this inviolable inclosure are the kitchens where the divinity's repast is sedulously prepared, and a whitish smoke arising from them is all that betrays what goes on within.

As a pendant to this gigantic Dravidian temple, we present on page 201 a picture of a mosque standing in a garden just outside Trichinopoly ; simple and plain, it requires no description, and the contrast points its own moral.

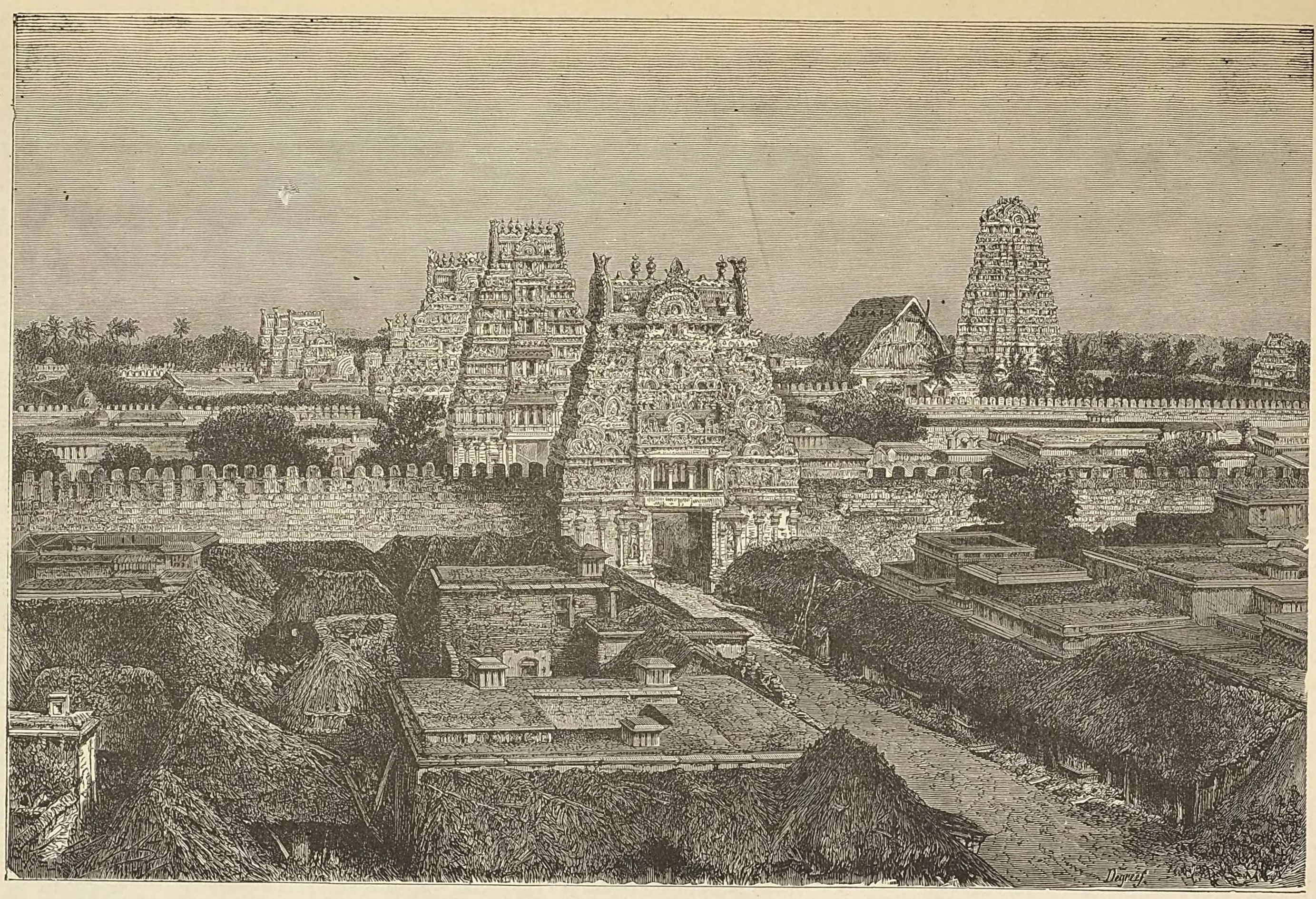
At Tanjore, a few miles from Trichinopoly, and connected with it by a railway

built about 1860, there is an immense pagoda, not varying in any important respect from the type of that at Madura. There is also a famous palace of the Mahratta princes, represented on page 200, concerning which we shall give some details.

"Although, like all nations of Turanian race," says Fergusson, "the Dravidians were extensive and enthusiastic builders, it is somewhat singular that till they came in contact with the Mahomedans, all their efforts in this direction should have been devoted to the service of religion. No trace of any civil or municipal building is to be found anywhere, though, from the stage of civilization that they had attained, it might be expected that such must have existed. What is even more remarkable is, that no castle or fortification dates from the days of the native rulers of the Carnatic. Most singular of all is the fact that they have no tombs. They seem always to have burned their dead, and never to have collected their ashes, or raised any mounds or memorials to their departed friends or great men. No Dravidian tomb or cenotaph is known to exist anywhere.

"When, however, the Dravidians came in contact with the Mussulmans, this state of affairs was entirely changed, in so far at least as the civil buildings were concerned. The palaces, the elephant stables, and the dependencies of the abodes of their rajahs, rival in extent and in splendor the temples themselves, and are not surpassed in magnificence by the finest Mahomedan palaces.

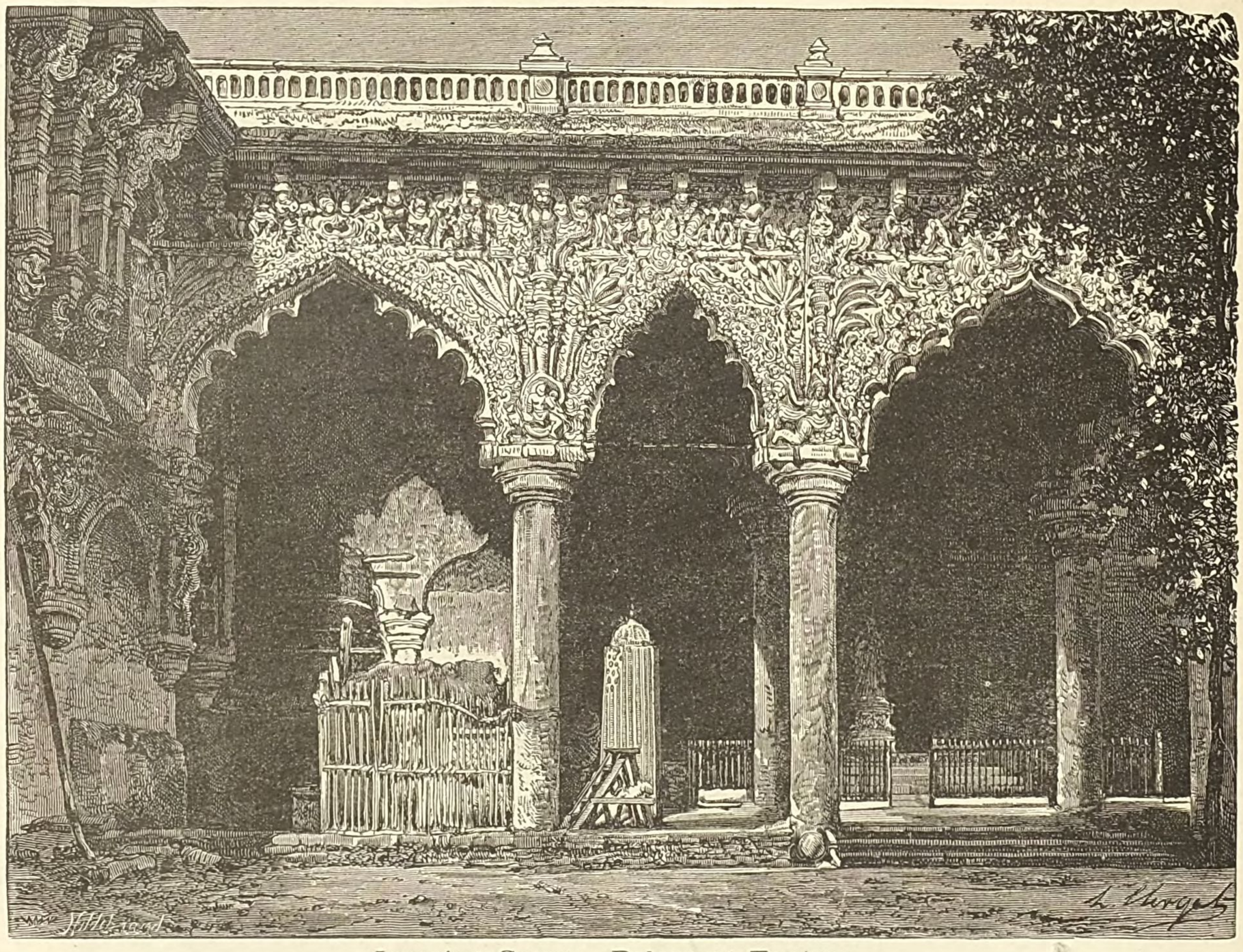
"One of the most interesting peculiarities of these civil buildings is that they are all in a new and different style of architecture from that employed in the temples, and the distinction between the civil and religious art is kept up to the present day. The civil buildings are all in what we should call a pointed-arched Moorish style, picturesque in effect if not always in the best taste, and using the arch everywhere and for every purpose. In the temples the arch is never used as an architectural feature. In some places, in modern times, when they wanted a larger internal space than could be obtained by bracketing without great expense, a brick vault was introduced, — it may be said surreptitiously, for it is always concealed. Even now, in building gopuras, they employ modern beams supported by pillars as lintels, to cover the central openings in the upper pyramidal part, and this wood having decayed, many of the more modern exhibit symptoms of decay which are not observable in the older examples, where a stone lintel was always employed. But it is not only in construction that the Dravidians adhere to their old forms in temples. There are, especially, some gopuras erected within the limits of this century and erecting even now, which it requires a practised eye to distinguish from the older examples; but with the civil buildings the case is quite different. It is not indeed clear how a convenient palace could be erected in the trabeate style of the temples, unless wood were very extensively employed, both in the supports and the roofs. My conviction



PAGODA. SERINGHAM.

is that this was really the case, and its being so, to a great extent at least, accounts for their disappearance."

With the Mussulman rule, however, begins the use of the arch in civil buildings, and the Palace of Tanjore is a fine instance of the later architecture of this semi-Moorish description. It was probably commenced in the latter part of the seventeenth century, but most of its buildings belong to the eighteenth, and some even to the nineteenth. The visitor is at first struck with the contrasts existing in it between the most abject poverty and a truly royal splendor. It will be remembered, however, that in India every rajah is surrounded by thousands of servants, who share



Interior Court. Palace at Tanjore.

his good or his bad fortune, and must be lodged under his roof. Hence the necessity for extensive apartments suited to these impecunious followers.

Externally the palace makes no show; two gates, one of which is very lofty, giving entrance to elephants, and a seven-storied tower, — a curious specimen of Indo-Mussulman architecture, — alone distinguish the exterior of the royal dwelling from the huts which surround it. The main courtyard is surrounded, as in all native structures, by dilapidated and filthy buildings, swarming with the crowd of the rajah's dependants. But one thing gives an Oriental stamp to the place, the presence of a couple of fine living elephants, one on each side of the gate, on a platform of masonry,

MOSQUE NEAR TRICHINOPOLY.

to which they are chained by the foot : majestic colossi, incorruptible guardians of the palace of a king.

A quadrangular court far within (represented on page 200), contains the statue of Sivadji, the late rajah. The western façade, of bricks and *chunam*, a kind of stucco made of calcined madrepore, is the purest and best specimen of Indo-Mussulman art under the native dynasty. The ornaments are remarkable for the elegance and variety of their design. On the side beneath which stands the marble statue of Sivadji, the archivolts, too heavily laden, and the columns, somewhat too massive, are not so satisfactory as the simpler arches and balconies of the other side.

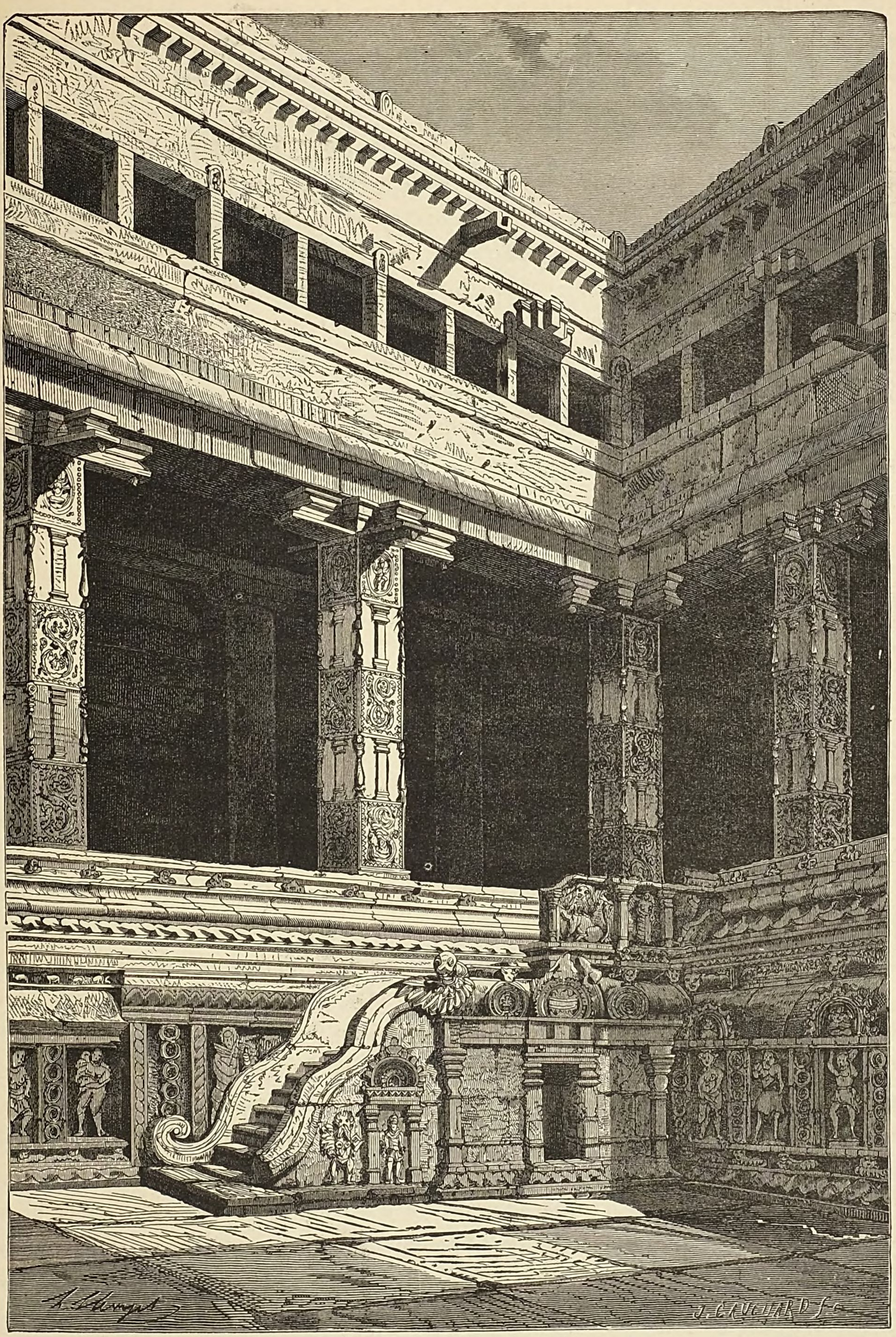
When the native princes, surrounded by their court and warriors, sat in state upon the granite block which now serves as a pedestal for the sculptured figure of the last Mahratta ruler, it must have been a fine and imposing display. The block measures twenty-seven feet in length by twenty in breadth, and nearly four in height; its sides are ornamented with bas-reliefs representing wars of demons. Here, formerly, justice was dispensed. The statue, the work of Chantrey, is extremely beautiful. The rajah is represented in the attitude of devotion, looking towards the temple. On the wall, behind the statue, is a bas-relief in stucco.

The palace contains an arsenal and a library. The latter is rich in Tamul, Teloogoo, and Sanskrit manuscripts, written upon leaves of a kind of palm-tree ; it also contains many European books of no special value.

In all the architecture of the Palace of Tanjore one fact is brought constantly before the eye and mind — the hatred of the Hindoo for symmetry. All the arches differ among themselves in outline, and the most diverse ornaments succeed one another without harmony.

On pages 203 and 205 we represent the Pagoda of Chillambaran, one of the most venerated, and reputed to be one of the most ancient temples in southern India. Modern research has, however, been forced to relinquish the date of the sixth century, which was at one time relied on, and the tenth or eleventh century is now believed to be the earliest period to which any part of the building can be attributed. The temple of Parvati, of which a gallery and staircase are represented on page 201, was added in the fourteenth or fifteenth century, and the hall of a thousand columns was almost certainly erected between 1595 and 1685.

"Although this temple has been aggregated at different ages," says the distinguished author of the "History of Indian and Eastern Architecture," to whom we have before referred, "and has grown by accident rather than design like those at Seringham and Tiruvalur, it avoids the great defect of those temples ; for though like them it has no tall central object to give dignity to the whole from the outside, internally the centre of its great court is occupied by a tank, round which the various objects are grouped without at all interfering with one another. The temple

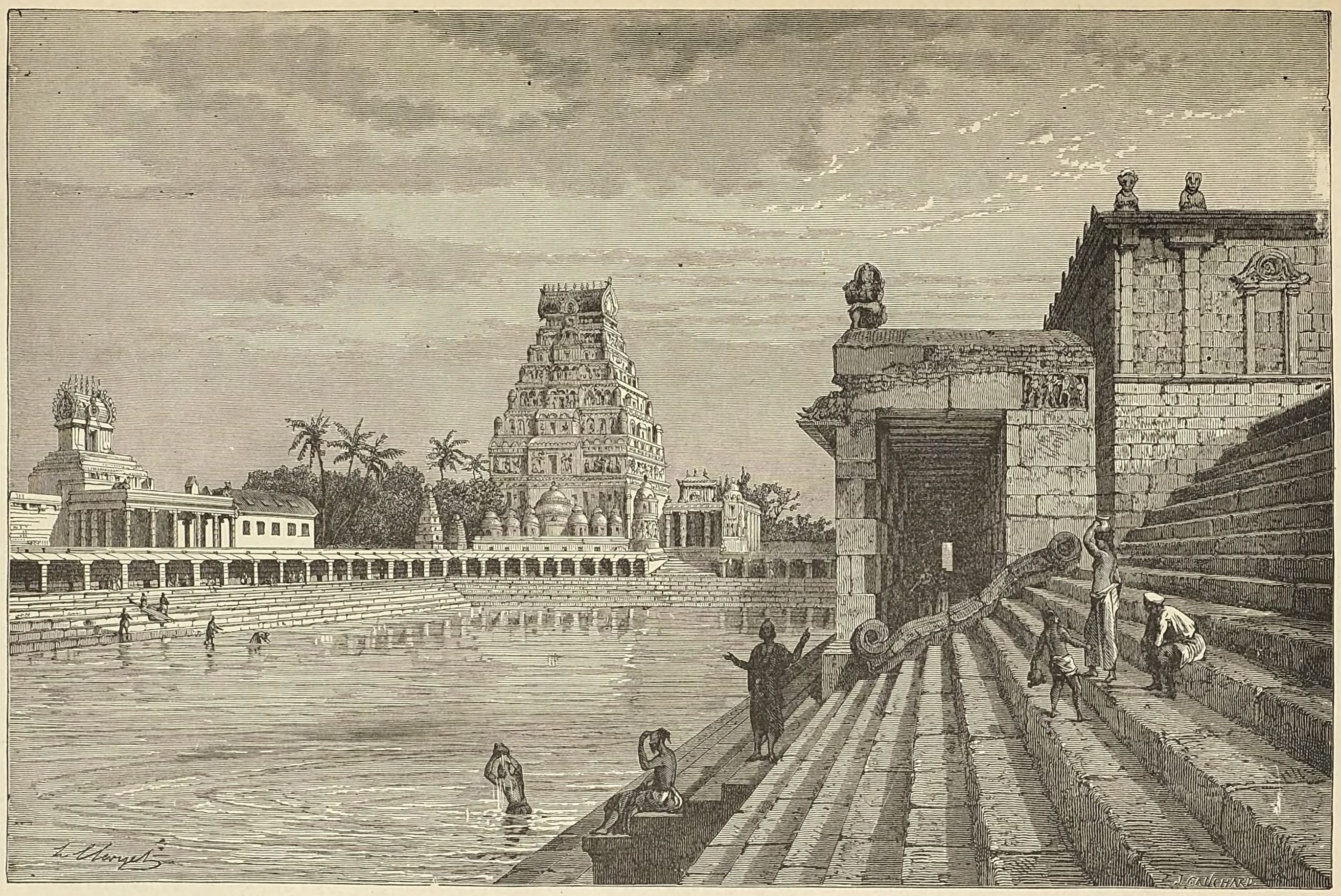


PAGODA OF CHILLAMBARAN.

itself is one important object to the eastward of it; the Parvati temple another, on the north, forming a pleasing pendant to the thousand-columned choultry at the south."

The exterior inclosure is formed by a wall more than thirty feet in height: more than ten feet thick at the base, it is reduced first at half and then at three quarters of its height, by about twenty inches on each side, so that at the top it is scarcely more than three feet in thickness. Externally it is all of hewn stone, but is said to be brick within. It is more than six thousand feet in circumference, and surrounded by a fine road bordered with cocoanut-trees. The four entrances are only breaks in the wall, and have no ornament. A second wall, less regular and much lower than the first, succeeds. This is partly of brick and partly of hewn stone. The interval between the two walls contains no building, but is filled with beautiful trees whose height serves as a scale by which to estimate the immense buildings within.

In this second wall are the immense gopuras, one of which is represented in the illustration, page 205. These are four, of nearly equal size; their positions are not respectively regular; their general form is a truncated pyramid, resting on a great rectangular mass of hewn stone covered with carvings, while the whole upper part of the structure is of brick, ornamented with mouldings in stucco, and seven stories in height. The entire height is about one hundred and forty feet, thirty-five feet being hewn stone. What may be called the basement of these gopuras has vertical sides forming two stories, separated by mouldings and cornices, the whole covered with grotesque carved figures that only photography could reproduce. In the lower story, each statue has a rectangular niche, never rounded above. The niche is quite deep, surrounded by columns, and surmounted by a pediment, like a little temple. The divinities are of stone, and are either fully detached or in very high relief. They all seem to be of the same fine, light-colored sandstone, and cut out of a single block. Often, to increase the difficulty, they are cut out of the same block as the niche. As most of them are of larger than life-size, it will be readily seen what immense blocks must have been required for the work. These figures represent the numerous divinities that Hindoo superstition has created. Some have heads of elephants, of horses, or of oxen; others brandish a dozen arms. Many, appearing indifferent or sleepy, are seated on cushions, one leg pendent, the other drawn up under them. Each niche is ornamented on the sides with columns or pilasters carved in arabesques or representing figures: these ornaments are in great variety, and in some cases are very elegant. The friezes which separate the stories or surmount them are rounded, forming a sort of projecting gutter, decorated with carved work, and beneath there is a succession of rude figures of birds, the stone between being also carved.



TANK. PAGODA OF CHILLAMBARAN.

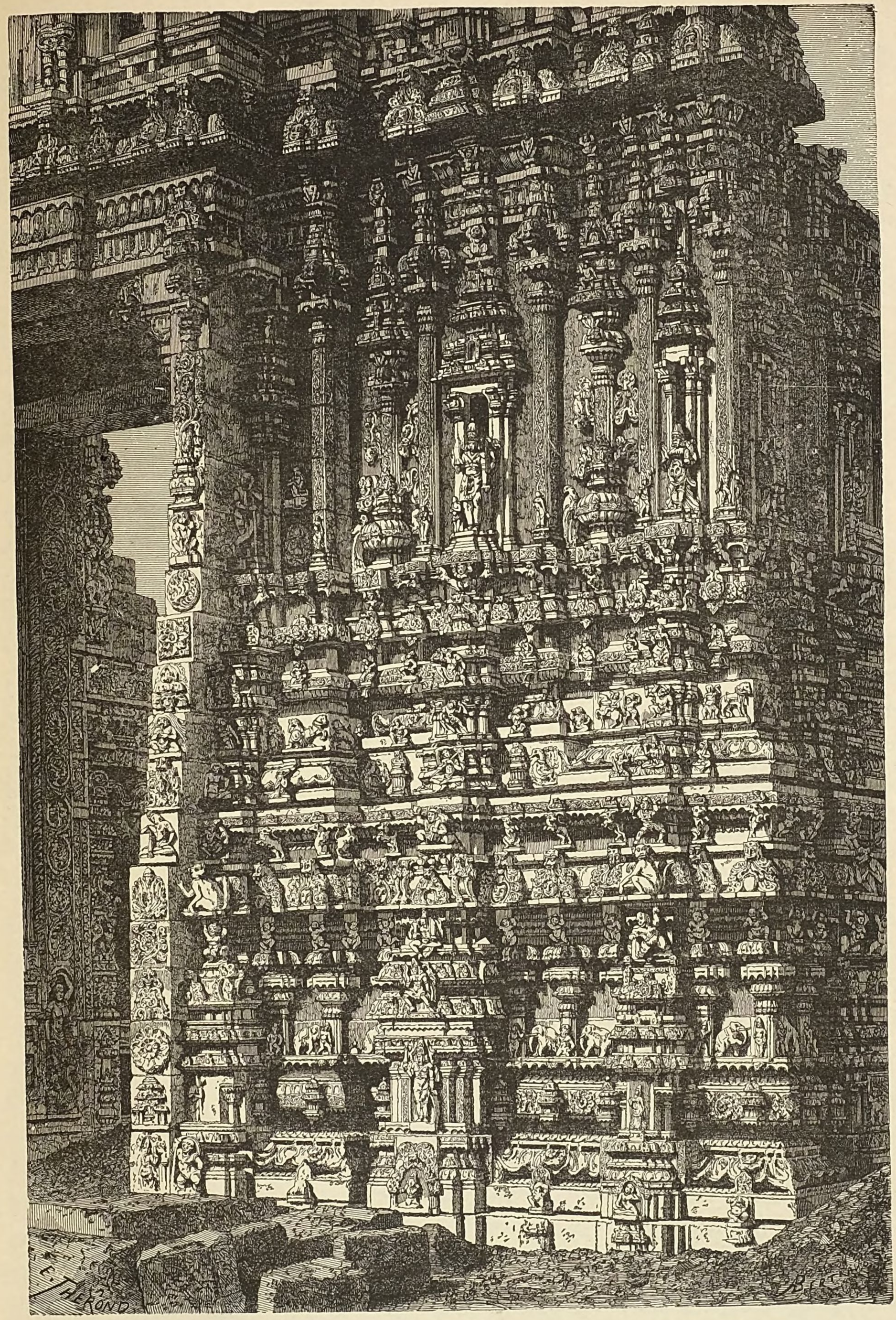
The second story of the basement is twice the height of the lower. It is much less decorated; there are indeed great spaces wholly bare. In the centre, near the door, are two great niches in brickwork, with three more on each side. These are much larger than those of the lower story, and contain grotesque figures of divinities. Those of the central niches are of colossal size.

This basement, which we have thus described, is traversed by a great entrance-way or door, twenty-five feet high and fourteen feet broad. Its form is rectangular, and its roof consists of enormous stones supported by pilasters, and by four enormous monoliths, thirty feet high and twenty-eight inches in diameter. Without comparing these pillars to the obelisks of Egypt, we cannot but be amazed at their size and number, each gopura having four. They are said to have been brought from a quarry thirty miles away, and must have been transported over sandy ground, no communication by water being possible. Nothing but the religious fanaticism of India could, like that of Egypt, have executed such labors, and, in addition, we must suppose an advanced condition of science, that the labor of many men could have been concentrated to effect such results.

These four monoliths are not carved, perhaps to show that each is a single stone; but the pilasters are a mass of the richest work, and so are the columns of the two lateral entrances, and the vaults overhead. All the carving has been done with the utmost care, and the edges are as sharp as if finished yesterday.

Above this massive base rise the seven stories of the gopura. The first six are alike, though retreating as they ascend. Besides a frieze, each story has its walls ornamented with columned niches, in which there are statues; ascending, the dimensions grow less, and the character changes slightly. Each story also has little structures built out at the angles. All these small temples, borne by the large one, are mingled with statues sometimes much larger than life-size, making discordant gestures, and having traces of brilliant paint upon them. Each story, up to the seventh, also has a door serving to give light to its interior. The seventh story is a sort of round-roofed house, covered with a similitude in stucco of round or pointed tiles, surmounted by those flattened balls ending in a point which are seen on mosques. These balls are of stucco, like the rest, but are said to have been formerly of gold. Upon the very top of the building there is a hideous figure of great size; it has an enormous mouth with pointed teeth, two of them curved tusks, pointed ears, and on the head two horns. The eyes are great white balls, very projecting, and surrounded with red and yellow.

The study of this gopura is a course in Hindoo theogony. The whole Indian Olympus is depicted here: Brahma, with his five heads and four arms; Vishnu, "the blue god," sitting upon the folds of a serpent, whose five heads cover him like a canopy; Siva, white and livid, with the hideous head above described. Among the



GOPURA. TRIPUTRY.

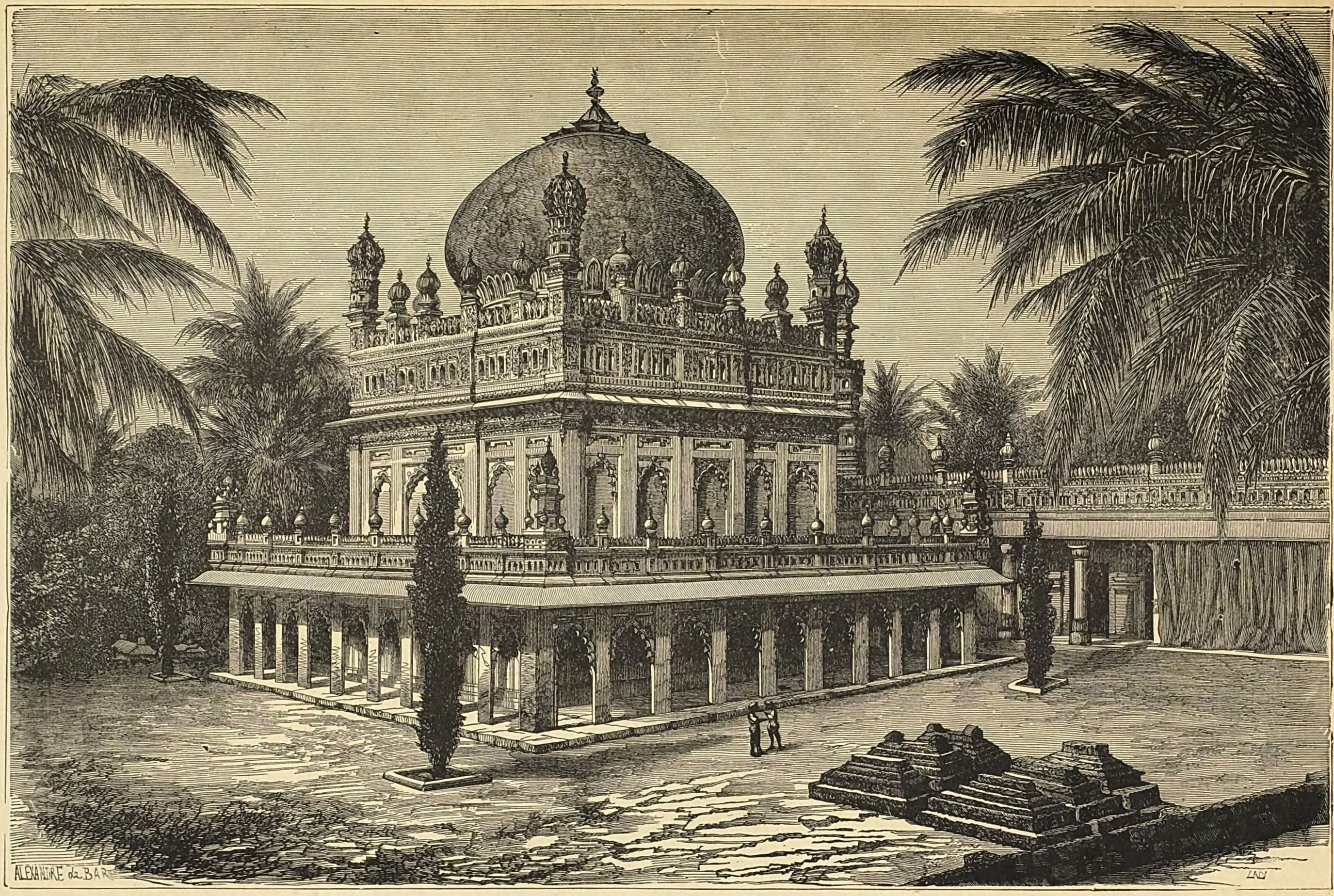
statues are the numerous incarnations of Vishnu, — when he transformed himself into a fish or a tortoise, when he had flames upon his head, and the like. Other divinities have elephants' trunks; one is mounted on a paroquet. Some have five to ten heads and four to eighteen arms, all holding weapons or symbols ; they are black, red, green, or blue ; a few only are flesh-colored. All these figures wear pointed mitres, sometimes three or four stories high, painted in bright colors; all have many bracelets, above the elbow as well as below it, and wear great rings, not only in the ears but around them.

To give a clearer idea of these carvings, with their high relief and infinite diversity, we present on page 207 a section from a gopura at Triputry, of the same design and finish as those of Chillambaran. This gopura belongs to an entirely deserted temple, about a hundred miles further inland.

Within the second inclosure at Chillambaran, besides the various buildings, there is the *ghaut*, or sacred tank (page 205), without which no religious edifice, or even village or hamlet, is complete in India: for all castes subject to the law of Manu are required to perform many ablutions daily. This tank is a quadrilateral three hundred feet in length and two hundred and fifty feet in breadth, surrounded by a broad granite staircase giving access to a gallery of great height. There is nothing more curious than the aspect of one of these fish-ponds in the morning, when the natives, lightly clad, come silently, with devout air, rubbing their teeth with a prescribed root, and bearing a small copper vase in one hand, to perform their religious duties. At the water's edge they make numerous prayers, accompanied by many genuflections; then laying aside their garments, they bathe, pouring water over their heads from the copper vase.

In the centre of a group of buildings on the left of the great gopura is the sanctuary of Vishnu. Here is the figure of the divinity, half the size of life, seated upon his serpent, and surrounded by flowers and garlands of jasmine. Many lamps filled with cocoanut-oil are burning in this shrine, which has no windows or means of ventilation, and has an atmosphere endured with difficulty even for a few minutes. Hither the brahmins repair at nightfall, and place themselves in rows on each side of the sanctuary, some advancing and prostrating themselves before the idol. Meanwhile a bell rings at intervals, and the priests chant responsively in a nasal tone.

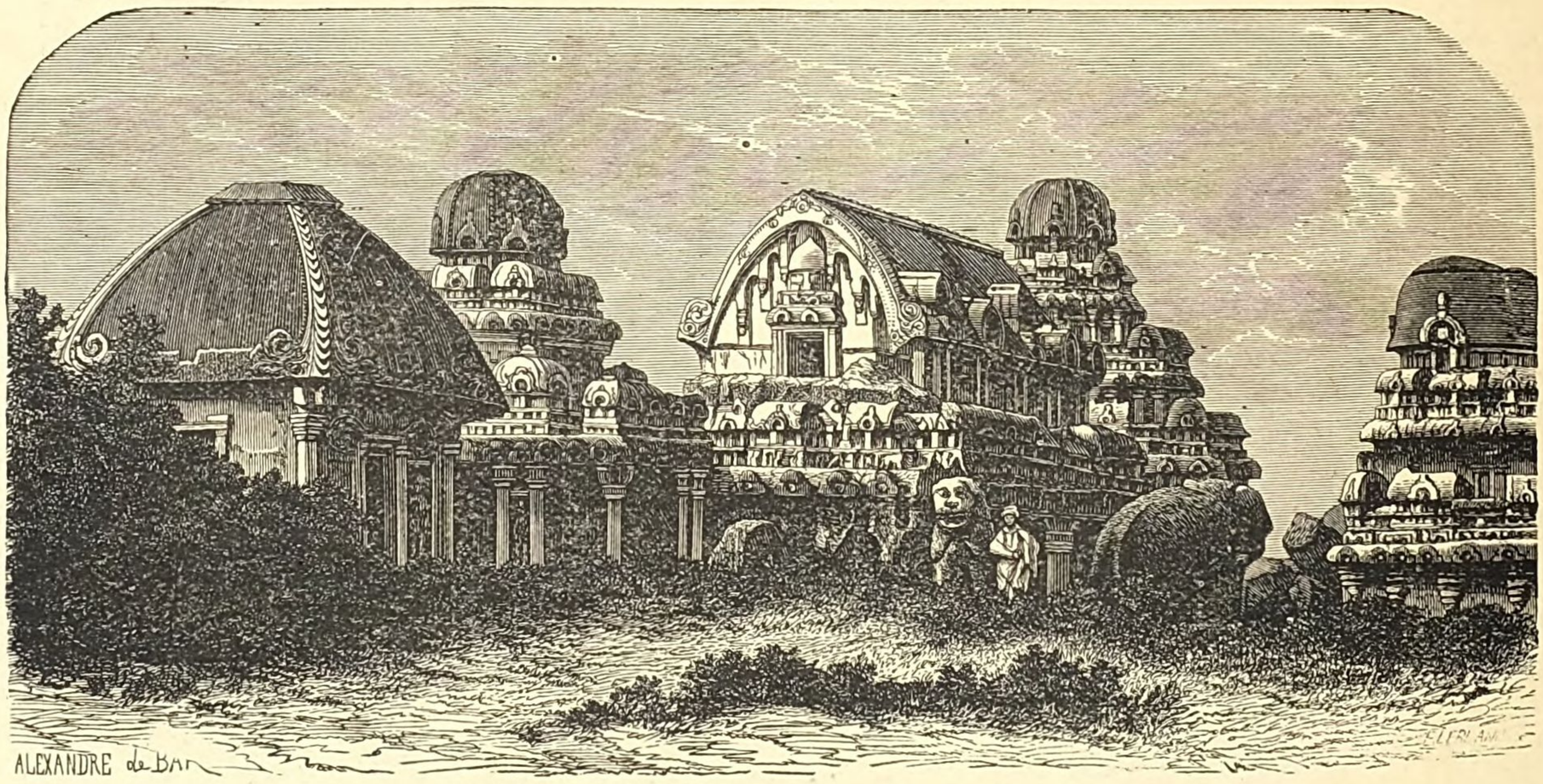
In another sanctuary, consecrated to Bramh, there is no figure; five pillars of sandal-wood adorn the entrance. In the opinion of some these pillars represent the five elements, the wind being the fifth ; according to others they represent the five classes of priests. Eighteen other columns of the same wood, placed before the grating, represent the eighteen Puranas, or cosmogonic poems of the Hindoos. A throne covered with plates of gold, stands within the sanctuary, and over it hangs a deep violet curtain. This curtain is called the Impenetrable Mystery, and covers what they



MAUSOLEUM. GOLCONDA.

denominate the "Splendor of Grace," the Supreme Being, infinite, invisible, the First Cause, *Bramh*, whom nothing escapes, who can be represented in no way, whom Brahma himself adores.

Chillambaran, like all the centres of Brahminic worship, has its solemn processions; here they occur by night rather than by day, and nothing can be imagined more picturesque than these scenes, beneath the cocoanut-trees of the first inclosure. The image of the god is enthroned on a huge scaffolding, twenty-five or thirty feet high, entirely covered with jasmine flowers, their lustrous white shining in the torch-light against the dark sky and masses of trees. Twenty or thirty men bear this shrine upon their shoulders, and are preceded by four elephants, shaking their great ears and waving their trunks above the crowd. Then follow huge trays of



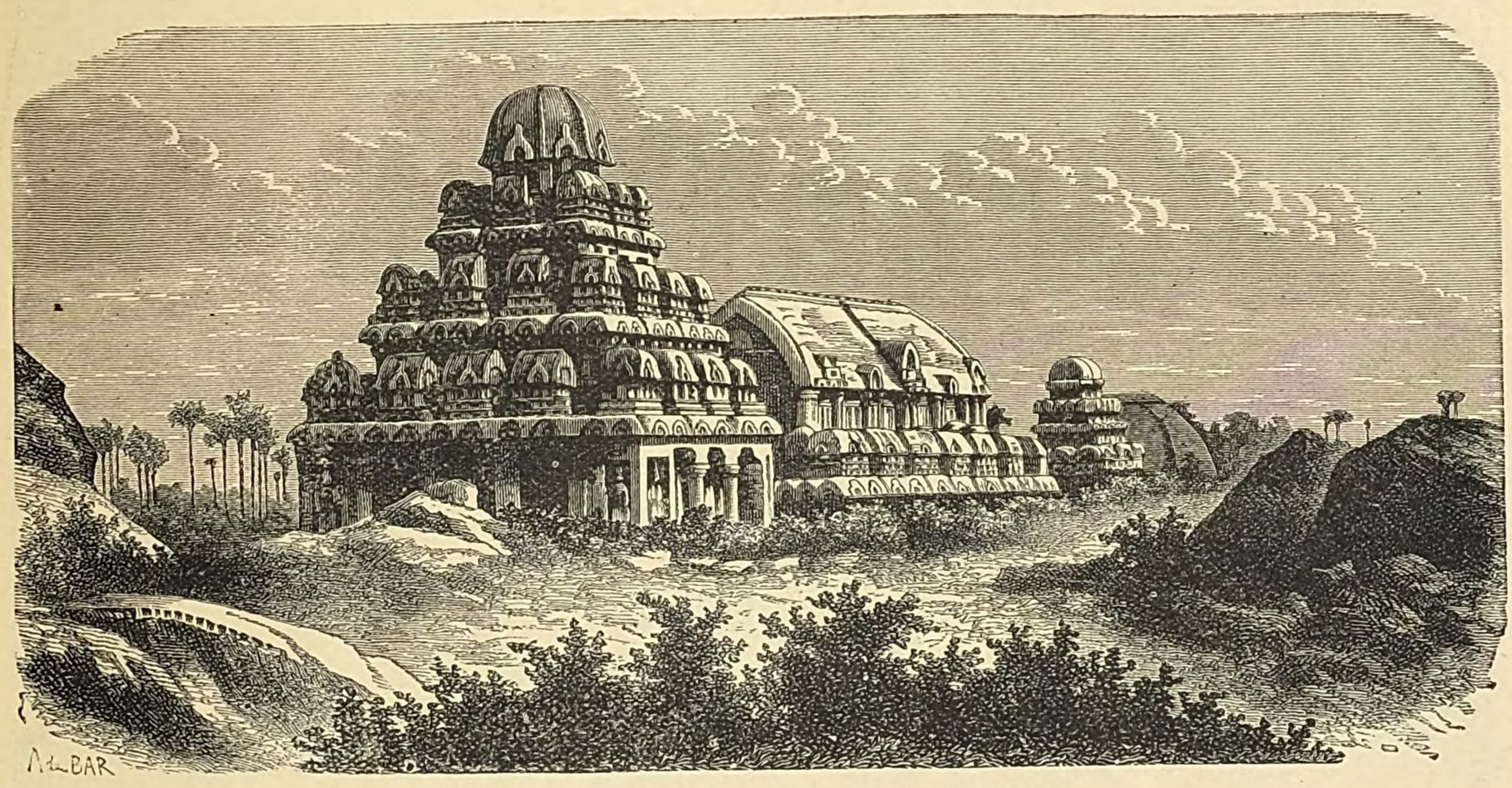
Rock-hewn Temples. Mahavellipore.

woven branches, filled with vases in which cocoanut bark is burning, lighting up the under side of the foliage of the trees with its sparkling and fitful flame, while troops of men carry torches of the same substance or of cotton dipped in the oil of the cocoanut. The crowd gather close around this procession, and in their white garments add still more to the picture; while overhead, the cocoanut-trees offer infinite variety of graceful outline and masses of light and shadow.

Our series of illustrations of Dravidian architecture would be incomplete without an example of the rock-cut temples, which are the most ancient remains of this remarkable style. The "raths" of Mahavellipore are of as early date as the fifth or sixth century of our era, and they appear to be copies in stone of earlier wooden structures designed as monasteries. Situated on an open sea-beach, a few miles from Madras, they have been much visited and often described; but much of their mystery is still undeciphered. In some respects they are the most marvellous work of

human hands existing. Let the reader imagine a sandy plain, out of which rise isolated granitic rocks of various height and size. Upon these masses of granite, human labor has been expended until they have assumed the form of elaborate temples, covered with inscriptions without, and even in a degree excavated within, as though they were structures raised in the usual way. Four of them stand in a line, north and south, and seem to have been all carved out of the same rock, which must in that case have been between thirty-five and forty feet high at its southern end, sinking to half that height at the northern extremity, and its width diminishing in like proportion.

The two illustrations represent this range of four temples ; the one on page 210 taking them from the north, the other from the south. The first on the north is a

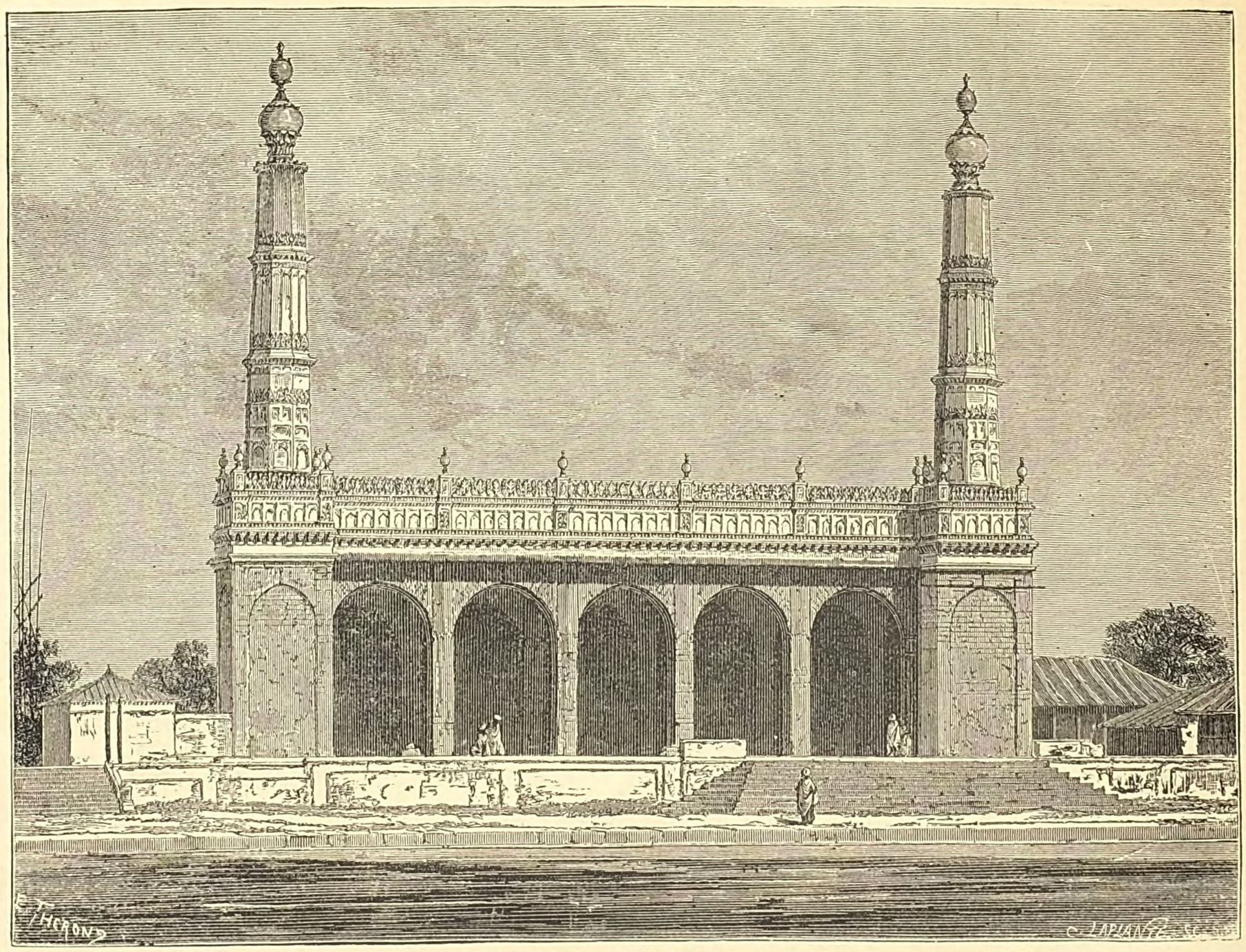


Rock-hewn Temples. Mahavellipore.

mere cell, eleven feet square externally and sixteen feet high. The second is a small copy of the fourth, and measures eleven feet by sixteen in plan, and twenty feet in height. The third is very remarkable ; it is an oblong building, with curvilinear-shaped roof with a straight ridge. Its dimensions are forty-two feet long, twenty-five feet wide, and twenty-five feet high. Externally its carving is completed, but internally it is only partially excavated, the work apparently having been stopped by an accident. It is cracked completely through, so that daylight can be seen through it, and several masses of rock have fallen to the ground. This has been ascribed to earthquakes and to other causes, but it appears more probable that it was due to the inconsiderateness of the architect of this curious structure. Having completed the exterior, he proposed to excavate the interior so as to make it resemble a structural building of the same class, leaving only such pillars and supports as would be enough to support a wooden roof of the same dimensions. But in this case the

roof was a mass of solid granite, which, had the interior been excavated as proposed, must have crushed the lower story into powder. As it was, the builders evidently took the hint, and ceased further work. The last of the series is the largest and most remarkable. Its dimensions are twenty-seven feet by twenty-eight in plan, and thirty-four feet in height. The upper part is entirely finished with its sculptures, the lower part merely blocked out.

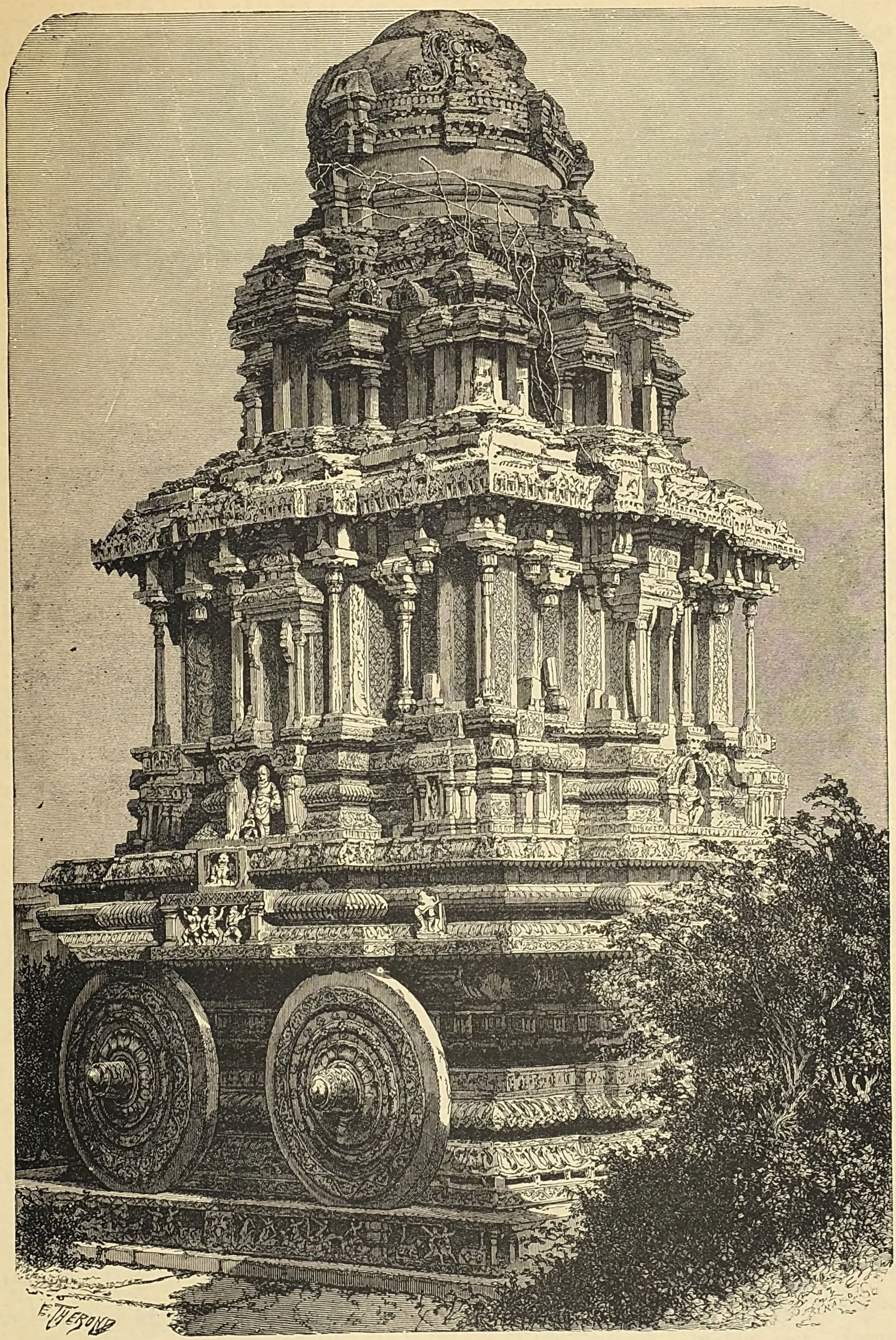
Near these temples are various animal figures: a colossal zebra partly buried in sand, a lion, and an elephant. In more or less neighborhood to this group are rocks covered with figures in high relief, and caves excavated from the rock, filled with



Mosque. Triplican.

marvels of sculpture. The inscriptions are in Sanskrit. The figures are, as usual, images of Hindoo gods — Brahma, Vishnu, and Siva, but all in forms more subdued than are found elsewhere. The one extravagance is that the divinities have four arms — never more — to distinguish them from ordinary mortals. "It is the soberest and most reasonable version of the Hindoo Pantheon yet discovered," says Fergusson, "and consequently one of the most interesting, as well as probably the earliest."

This region is almost entirely Hindoo, but there are yet a few Mohammedans,



CAR OF JUGGERNAUT.

especially in the cities, and there is a mosque of much importance at Triplican, near Madras. (See page 212.)

North of the Presidency of Madras, in the central portion of the Deccan, lies a region of about a hundred thousand square miles in extent, known as the Nizam's Territory. The government is Mohammedan, although the people are Hindoo. The present Nizam is the descendant of Azof Jah, an officer of the court of Delhi, who, being governor of this province in 1719, made himself independent, and founded a state which has subsisted till the present time.

Seven miles from his capital, Hyderabad, is the ancient city of Golconda, of which nothing is now left but the large, strong fortress crowning a rocky eminence, within the walls of which the Nizam keeps his jewels, and the tombs of the ancient kings of Golconda, some six hundred yards distant from the fortress. In passing, it is worth notice that the name of this city has become world-renowned on a curiously false notion of its diamond mines, which is quite as unfounded as it would be to speak of the gold mines of San Francisco. The territory of the Nizam was once famous for furnishing a considerable proportion of the diamonds of the world, but the mines have become unproductive and are no longer worked. When they did exist, however, they were not in Golconda, but in Parteall, some distance further south, and were merely cut and polished in the city. Golconda was, in the sixteenth and seventeenth centuries, the capital of a powerful kingdom, and the tombs of these kings are extremely splendid, forming one of the most striking groups of Indo-Saracenic architecture now existing.

They are square buildings resting on a rectangular granite platform. The first story is of granite ; upon this rests a second, partly of stone, partly of brick, the corners formed by octagonal brick pillars, supporting little minarets terminating in balls. This second story is surmounted by a spheroidal dome of the Arab shape. Within, in the centre of a vast unornamented hall, is placed the mausoleum of black marble, covered with verses from the Koran, cut in relief. Notwithstanding its extreme simplicity, this black mausoleum, under a vast white dome, is of striking effect. Most of the pillars are octagonal, and different portions of the edifice have bands of enamelled bricks of bright colors. In some of the tombs, the entire dome is covered with this brilliant enamel glittering beneath the tropical sun.

We now reach the Presidency of Bengal, the most eastern part of India proper ; and here we come to a very ancient and peculiar architecture, of which an example is given, page 215. Much difficulty exists in finding a suitable name by which to designate this architecture, and the term Indo-Aryan has been used, as less objectionable than any other, while it is still in a degree unsatisfactory. There is no trace of external Aryan affinities in this style ; in fact, no other style is so purely local and aboriginal. All that can be said is that it was invented and used in a country the

MOSQUE AT HOOGLY.

Aryans once occupied, and on which they had left a strong imprint of their superior mental power and civilization.

The Indo-Aryan structures have always the pyramidal form with curvilinear outline; there is no division into stories, no suggestion of habitations, no pillars or pilasters anywhere. Neither the pyramid nor the tumulus afford any hint as to the origin of the form; nor does the tower, either square or circular; nor does any form of civil or domestic architecture. It does not seem to be derived from any of these; and whether we consider it as beautiful or otherwise, it seems certainly to have been invented, principally at least, for æsthetic purposes, and to have retained that impress from the earliest to the present day. "My impression is," says Fergusson, "that if the great table-lands of Bengal, and their surrounding valleys, could be examined, much older forms of these temples could be discovered, — some, perhaps, so old as to betray the secret of their origin; but till this is done, the *Bengali devala* must be relegated, like the Irish round towers, to the category of unexplained architectural puzzles.

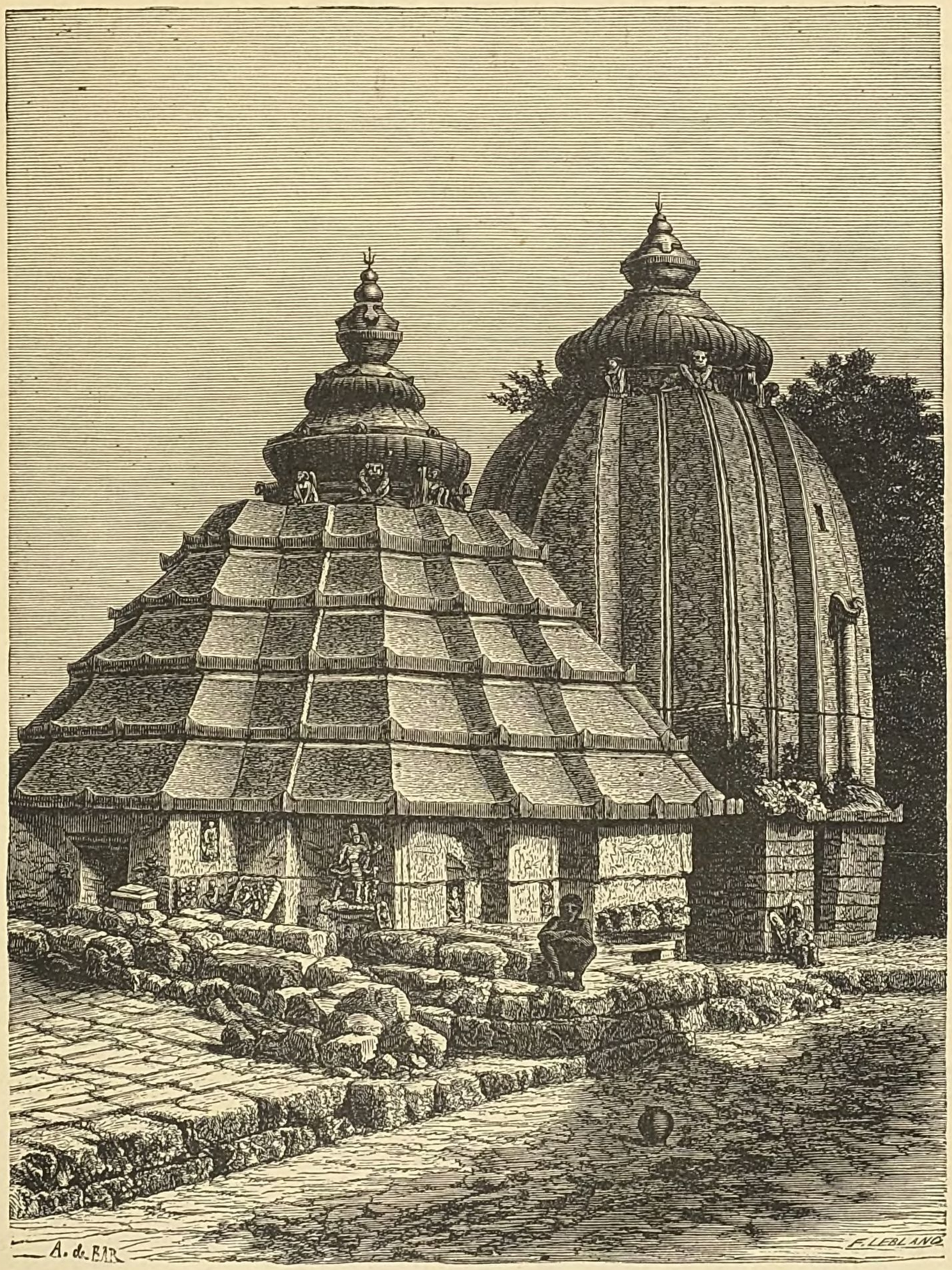
In connection with these Indo-Aryan structures are found certain great cars, of pyramidal shape, devoted to the transportation of the idol. They were originally altogether of stone, except a brick dome at the top; but alas! everything has degenerated since the "good old times," and even a Car of Juggernaut is not so heavy as it once was! They are now of wood, but being something like thirty feet long and equally broad, and of enormous height, they still require thousands of men, drawing upon six strong cables, to move them along the road from the temple to the pleasure-garden where the divinity takes his airing. The illustration on page 213 represents, however, the primitive type, as existing to this day in the ruins of Bidjanuggur.

Captain Mundy, an English officer who visited the temple in 1829, gives a vivacious account of his view of the idols on occasion of their airing in the car, "an event which," he says, "fortunately occurs but twice a year."

"Their godships were formed up in line, on an elevated terrace within the enclosure, and protected from the night dews by an extensive and gaudy canopy of many-colored cloths. The evening was dark, and at intervals blue lights were thrown up, to enable the spectators to view the ceremony; but the idols being almost constantly hidden by a forest of *chouries* and hand-punkahs diligently agitated by the attendant Brahmins, to prevent the flies and mosquitoes from invading their sacred noses, we sent a polite message to the Raj-Goru, or chief priest, requesting that he would cause the officials to open out for an instant to the right and left in order to afford us the satisfaction of contemplating the expressive countenances of the worshipful trio. Our embassy succeeded; the crowd fell back from before them; two brilliant lights were illumined, and we saw distinctly three frightful wooden faces, of the respective colors of black, brown, and yellow, the lower portions of the figures being closely swathed in cloth wrappers."

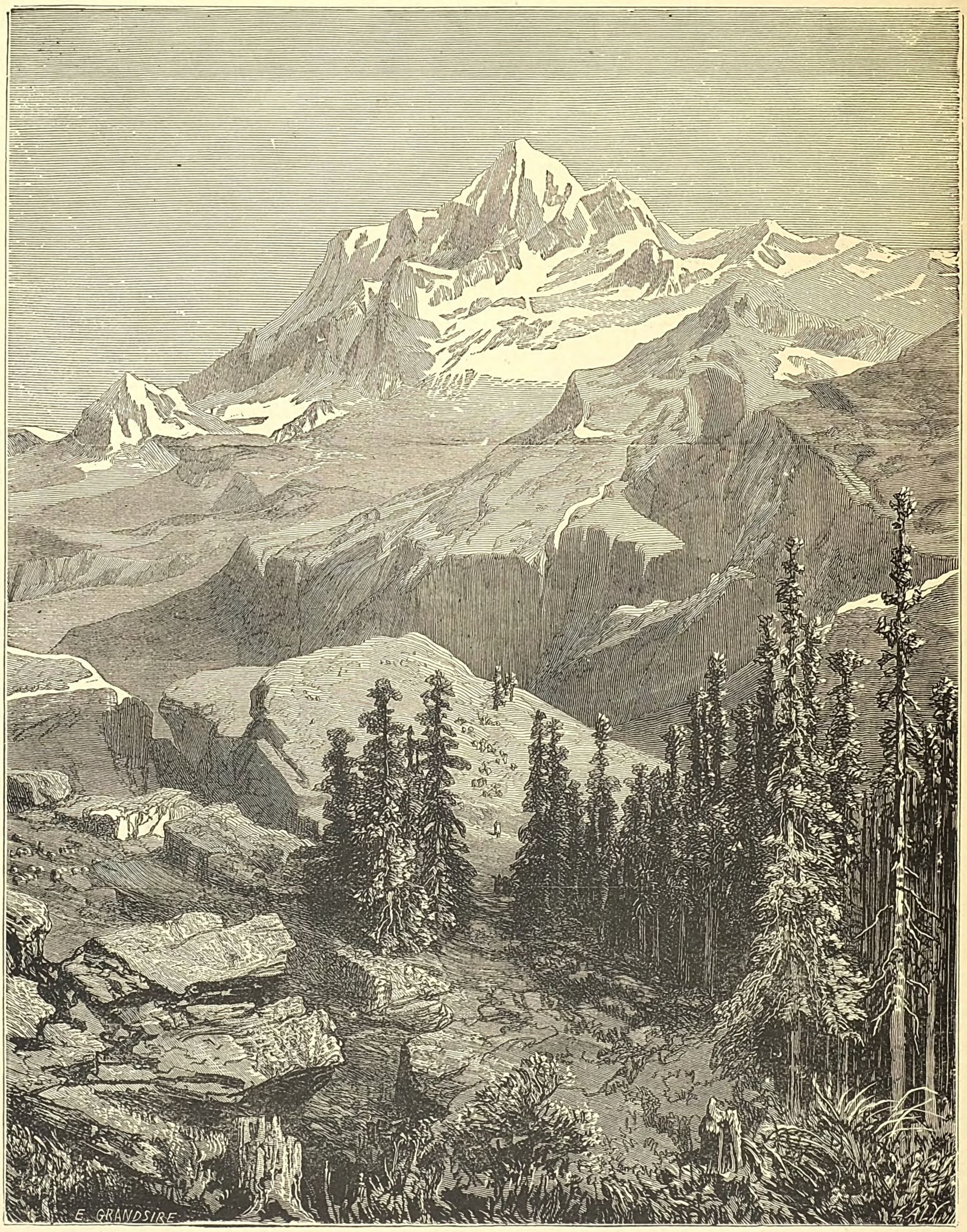
"The following day the idols were again consigned to their niches in the temple. Upon this occasion it is the annual custom for Juggernaut to declare himself to be *en petite santé*, from the effects of a severe cold, consequent, probably, upon his bath, which continues to afflict him until the day when, by the wise treatment of his physicians, he is restored to his usual good health!"

The city of Calcutta, though a large and important place, has less architectural



Pagoda near Kuttack.

importance than any of the great Indian capitals. We shall therefore pass it by, and, giving a picture of the splendid mosque at Hoogly, a few miles out of Calcutta on the north, we shall conclude our illustrations of India, where so many of Art's greatest treasures are gathered, with Nature's grandest marvel, the Mountain Gaurisankar, the culminating point of the earth's surface, a peak which rises to the height of twenty-nine thousand and two feet above the level of the sea.



Gaurisankar.

At the base of the great Himalaya range lies the valley of the Ganges, parallel with it for twelve hundred miles, and affording access to much of its grandest scenery. Eleven hours by rail from Calcutta, four hours in a river steamboat, a hundred and twenty-four miles in a *dak gharri*, or mail-cart, then fourteen miles on horseback or in a palanquin to the foot of the lower hills, and by similar means to the top of them,

bring the traveller to Darjiling, a point whence is obtained a magnificent view of the very highest peaks of this mighty range.

"Unfortunately," says Andrew Wilson, "Gaurisankar, the loftiest mountain of all, is out of the reach of nearly all travellers, owing to our weakness in allowing Nepaul to exclude Englishmen from its territory; but if any one is very anxious to try Chinese Thibet, he will find one of the doors into it by going up from Darjiling, through the protected state of Sikkim; but whether the door will open at his request is quite another thing, and if he kicks at it, he is quite likely to find himself suddenly going down the mountains faster than he went up them. *Verbum sat sapientibus*; but if one could only get through this door, it is a very short way from it to Lassa, the capital of Thibet, — which, possibly, is the reason why it is kept so strictly guarded.

"Gaurisankar and the highest peaks of the Himalaya are on the border between Nepaul and Thibet, and form a group somewhat obtruding from the line of the main range. It is provoking that the weak foreign policy of the Indian government, a policy, however, which has been very much forced upon it from home, should allow the Nepaulese to exclude English travellers from their territory. This policy places about five hundred miles out of the reach of the English traveller, though these five hundred miles contain the culminating point of the whole range, the most splendid jewel in the 'stony girdle of the earth.'"

Though denied to the English, travellers of other nations have succeeded in making their way into this closely guarded region; and the illustration on page 218 is reproduced from a sketch made upon the spot by Schlagintweit.

A first view of the Himalaya Mountains is described by Wilson with enthusiasm. "From Landaur," he says, "a sea of mist stretched from my feet, veiling, but not altogether concealing, ridge upon ridge of dark mountains, and even covering the lower portions of the distant great wall of snow. No sunlight as yet fell upon this dark yet transparent mist, in which the mountainous surface of the earth, with its black abysses, seemed sunk as in a gloomy ocean, bounded by a huge coral-reef. But above this, dazzling and glorious in the sunlight, high up in the deep blue heavens, there rose a white, shining line of gigantic 'icy summits reared in air.' Nothing could have been more peculiar and striking than the contrast between the wild mountainous country below — visible, but darkened as in an eclipse — and these lofty domes and pinnacles of eternal ice and *névé*. No cloud or fleck of mist marred their surpassing radiance. Every glacier, snow-wall, icy *aiguille*, and smooth-rounded snow-field, gleamed with marvellous distinctness in the morning light, though here and there the sunbeams drew out a more overpowering brightness. These were the Jumnotri and Gangotri peaks, the peaks of Badrinath and of the Hindoo Kailas; the source of

mighty sacred rivers; the very centre of the Himalaya; the Himmel or Heaven of the Teuton Aryans, as well as of Hindoo mythology."

The story of the expedition to which we owe the sketch here reproduced, is one of the deepest interest. Adolf Schlagintweit, with his brothers Hermann and Robert, all three distinguished at the university for their Alpine explorations, were recommended by Bunsen and Humboldt to the English government as suitable persons to take charge of the magnetic survey of India, left incomplete by the death of Captain Elliot in 1852. The English government supplied them liberally with money and instruments, and they sailed from Southampton, September 20, 1854. Landing at Bombay, they separated, and proceeded by different routes to Madras, making scientific observations on the way. Thence, early in the following year, they sailed for Calcutta, and on the 25th of March, Adolf and Robert entered upon their first Himalayan journey. From this time until October they explored the passes and glaciers of the range, reaching at one time an elevation of twenty-two thousand two hundred and sixty feet, the greatest height ever attained by any European traveller. In the latter part of autumn they came down to Agra, and Adolf proceeded alone to Madras.

In April, 1856, the three brothers, rejoining one another after independent explorations in Central India, again forced their way into the midst of the Himalayan giants, and passed the summer in making new researches. At the close of the year Robert returned to Europe by way of Bombay, and Hermann by way of Calcutta, Adolf remaining to pursue his researches further in Thibet and Turkestan. But the decision was a fatal one. In March, 1857, he crossed the Bara-Lacha Pass into Thibet, and proceeded to Kashgar; and here, in August, he was killed by the Turkomans. His journal, consisting of a hundred and thirty-five closely written pages, and bearing date up to August 11, was recovered by the English government; it describes a region never before visited by any scientific traveller.

The two surviving brothers have in preparation a complete narrative of the expedition, in nine quarto volumes, with maps and views, which will doubtless be, when completed, a work of unrivalled importance, containing as it does the results of three years exploration of the loftiest and most inaccessible mountains on the globe.

INDO-CHINA.

"THE vast regions which, in the form of a double peninsula, lie between the Bay of Bengal and the China Sea, are scarcely known, except upon the coast, the interior presenting a field for useless and wearisome conjectures." It is more than sixty years since Malte-Brun wrote these lines concerning the country at which we have now arrived, in our journey around the world. The learned geographer was well aware that the general relief of this region was formed by four chains of mountains, beginning in Thibet, extending themselves towards the south, and enclosing between their parallel escarpments three long and superb valleys, watered each by its great river; but he adds that these rivers were as yet almost entirely unexplored.

The six decades, so fruitful in discovery, which have passed over the work of Malte-Brun, have raised in a great degree the veil that once concealed Indo-China from our eyes. Two successive Burman wars have opened to the English the valley of the Irrawaddy; they have explored it as conquerors, and have reduced its southern half to the condition of a province. The length and breadth of Siam has been traversed by European and American travellers, and a French expedition has examined the whole course of the Makong as far as the Chinese frontier, giving special attention on their way to the ruined cities of Cambodia, the most remarkable architectural remains in the whole peninsula. Besides this, all the great Christian sects have had, and still have, missions in Indo-China, many of them possessing established places of worship in Burmah and Siam.

The illustration on the opposite page represents the Great Pagoda of Rangoon, seen from a distance, crowning the city with its elegant conical roof and gilded top. The town itself extends about a mile along the river, and the streets are narrow, but clean and well-paved. The houses are rude bamboo huts, but there are a few built of brick, belonging to Europeans, and since its occupation by the English the place has been fortified. From Rangoon, which is the principal seaport of Burmah, the traveller ascends the Irrawaddy, and at every mile admires the variety and beauty of the landscape. Between the river and the foot of the mountain-chains which define its basin, lie broad strips of low ground displaying the greatest luxuriance of vegetation. The villages are numerous and pleasing; often the sombre mass of a monastery, with its triple stories, commands the cabins and trees of the foreground, while in the middle distance rise low hills covered with dry grass, and crowned with pagodas to which winding paths lead up from every direction.

Approaching the ancient city of Pagán, the river seems to widen. The eastern shore is superb with vegetation. It is a succession of richly wooded valleys, and groups of palm-trees sheltering the villages. The first glimpse of Pagán shows an immense dome, — the Tsetna-Phya; then, glittering pyramids, rising one above another, and surmounting roofs resplendent with gilding; dark, gloomy temples, square and solid, whence spring bell-towers shaped like a mitre; and lastly, a crowd of cupolas, black and white, grotesque and fantastic, amid houses, palm-trees, fields, and gardens.

Seen from the river, the effect of this architecture is so strange and whimsical that one feels as if he were in a dream. Landing, the traveller finds his interest and curiosity increased. But little has been written about Pagán, although it is a city of much importance; and it was here, amid the ruins of an earlier time, that, on the 8th of February, 1826, the Burman army made its last stand against the English invaders.

The ruins of Pagán cover a space of six miles in length and a mile and a half in width, along the river-bank. The number of temples, either ruined or still standing, is not far from a thousand. They are of great variety: pagodas in shape of a bell, of a button, of a pumpkin, and of an egg; Buddhist temples, and relic-houses, with all the modifications possible to such structures, but having a certain similarity of general outline. For the most part these edifices are of cubic form; within, a great chamber with vaulted roof; at the main entrance, a great, projecting porch; on the eastern side, two lateral doors. The plan has the form of a cross; the building rises in successive terraces, ending in a spire which is often a kind of pyramid, swelling out half-way up. These constructions are of brick covered with plaster. The interior walls and chapels are similarly coated, and richly decorated in

GRAND PAGODA OF RANGOON

fresco. Such is, in general, the type of these temples, which vary in size from eighty to eight hundred square yards.

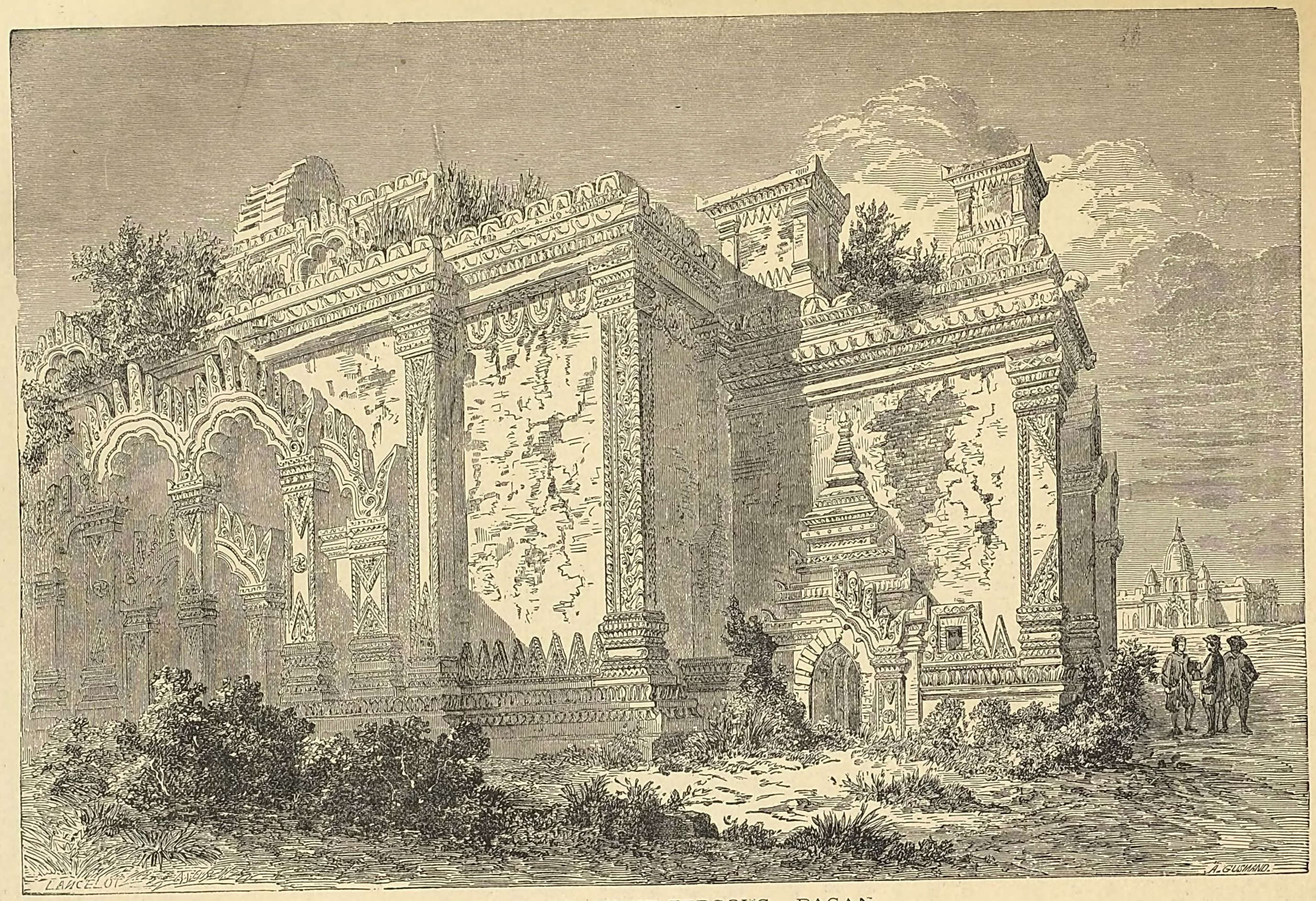
Their most remarkable features are the idols they contain, — colossal images thirty feet high, and all resembling one another. The only difference among them is in attitude: some preach, others pray, others give their benediction. Standing upon pedestals of wood carved to resemble a lotus-flower, they face the entrance of the chapels, which are all adorned with magnificent gates twenty-one feet high. These wooden gates are marvels of carving, representing leafage of the most exquisite finish. The immense niche in which the statue stands is sometimes nearly fifty feet high; a decoration of gilded metal surrounds it, having the effect of lacework. At the top of the niche, a concealed window pours a flood of light upon the head and shoulders of the idol, which, covered with gold, seems swimming in a sea of light. This brilliant vision, in the depths of the gloomy chapel, is inexpressibly effective.

The pagodas are all built of bricks cemented with mud. It is difficult to imagine buildings of this kind attaining a height of nearly two hundred feet; but they are almost solid masses, so that the corridors and arched roofs seem excavations. The work has been so carefully done, besides, the joining of the bricks is so perfect, that it is difficult to introduce between them the blade of a knife. The entire surface is covered with plaster, and where this coating remains firm, the buildings are in good condition; where it has given way they have fallen into ruin.

The temple of Shwé-Zergoug (page 225) is one of the most celebrated in the kingdom. Every Burman must visit it at least once in his life. Colonel Burney, who visited Ava in 1830, asserts that it was founded by the forty-second king of Pagán, Nauratha Men-zan, about the year 1064 of the Christian era, and was finished by his successor. There is kept in the temple a fac-simile of a tooth of Gaudama, — a tooth for which the king sent an army to China. The holy relic, as large as an elephant's tusk, eluding the invitation, preferred to remain in China, and the king was forced to content himself with a miraculous duplicate.

Amarapoora, the Burman capital, is built upon ground but slightly elevated above the river, and in the rainy season is nearly cut off from the mainland by the rise of the water. It is surrounded by a wall and moat, but its defences are of little importance, and would offer no resistance to modern artillery. The streets intersect one another at right angles, and divide the city into regular squares. The palace stands in the centre, and its walls are believed to be exactly parallel with the city ramparts.

North of this building is the Palace of the Lord White Elephant, behind which are the common apartments of his Highness, and the stables occupied by the ordinary elephants, belonging to the king. Captain Yule, of the Bengal Engineers, describes the animal living at the time of his visit as more than fifty years of age, of enor-



TEMPLE OF SHWE-ZERGOUG. PAGAN

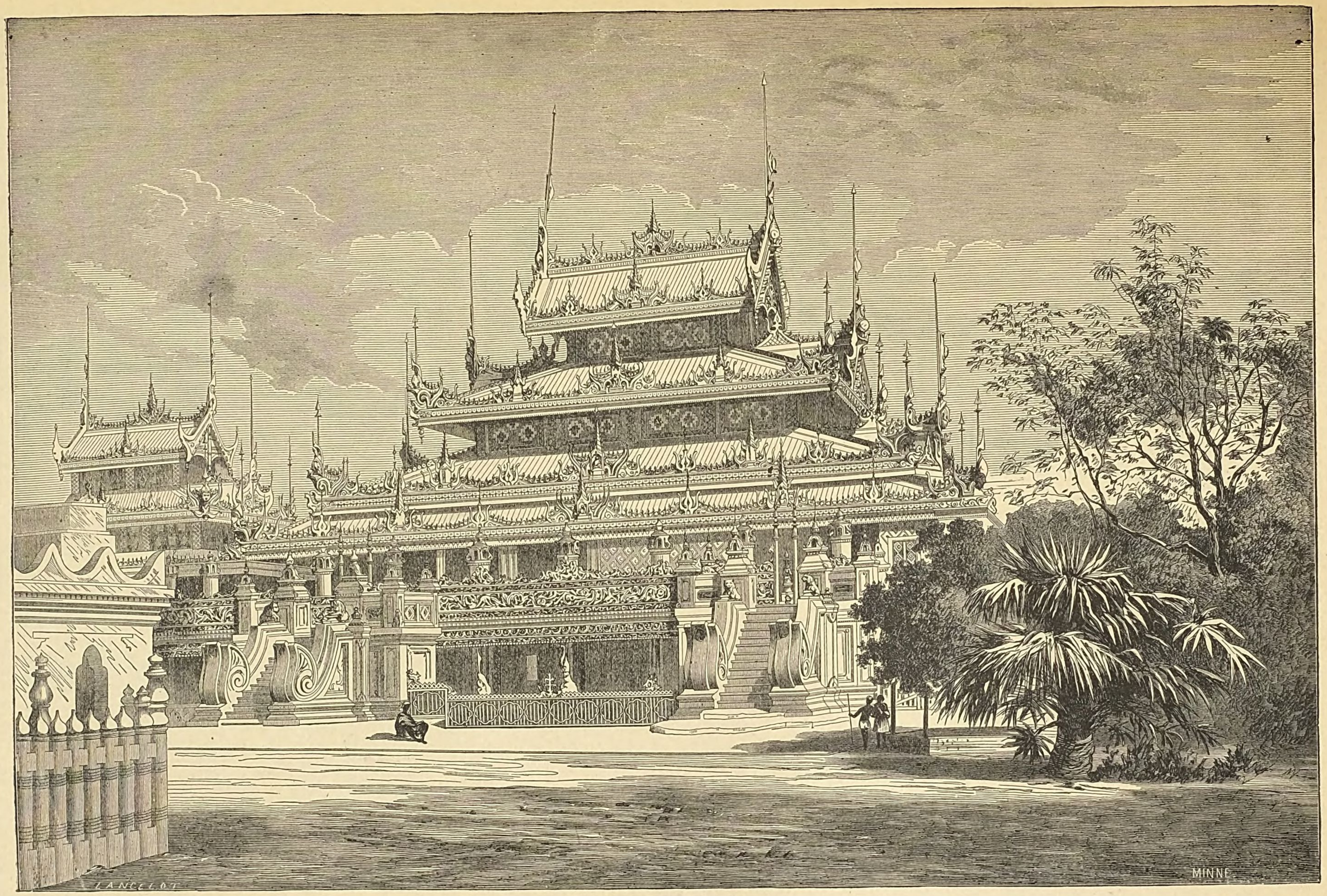
mous size, but meagre and ill-conditioned, and of a truly royal uncertainty of temper. This elephant was of the color of the spots which are seen on the trunk and ears of the ordinary animal, and well merited his title of "white." His royal paraphernalia, which is exhibited to visitors, was truly magnificent; his driving-hook, about forty inches long, was encrusted thickly with pearls; the handle was of crystal, with gold ornaments and two or three bands of rubies. His tiara of cloth of gold was adorned with great rubies and superb diamonds, and circles of "the nine precious stones which turn away malign influences" rested on his forehead.

When the animal is in grand costume, like the great Burman dignitaries and the king himself, he wears on his head a gold badge on which are inscribed all his titles, and between his eyes a crescent of large gems. To his ears hang enormous silver tassels, and he is caparisoned with scarlet silk embroidered with pure gold. A fief belongs to him, and a special officer of high rank; he has four golden umbrellas, and a household of thirty persons. Before entering his palace, the Burmans lay aside their shoes.

The capture of a white elephant is frequently announced, and causes great excitement at court. But usually, on investigation, it appears that they are only pretenders, to the king's great regret; for the capture of a genuine white elephant is a consecration by nature of the reign in which the event occurs. In 1831, one was taken which was white enough to require great respect and an establishment second only to the real White Elephant. But the government was at that time paying off the indemnity of the peace of Yanabo, and was obliged to appropriate to this purpose the revenues of the new-comer. A deputation presented with great pomp to the animal a letter from the king, begging his pardon for the unintentional disrespect, and assuring him that the whole sum should be reimbursed within two months.

Exactly in what light the white elephant is regarded by Burmans of intelligence is a thing not easily ascertainable; but there seems reason to believe that he is considered merely as a traditional attendant upon royalty, like the cream-colored horses which draw Queen Victoria's carriage when she goes to open or prorogue Parliament.

The streets of Amarapoora are broad, and clean enough in the dry season. But in the rains the mud becomes intolerable, and almost prevents access to some quarters of the city. Most of the houses are constructed of bamboo, raised upon posts. Along the principal streets, a few feet in front of the houses, runs a row of palisades, neatly made and whitewashed. The posts supporting them are crowned with flower-pots, and shrubs grow in abundance between the palisades and the house. The *yaja-mat*, or king's palisade, is designed to prevent the crowd from disrespectfully embarrassing the passage of royalty, and even from looking upon his sacred person; for the proverb, "A cat may look at a king," does not seem in force in Burmah.



MAHA-TOOLUT-BOUNGYO.

This system of palisades gives an air of neatness to the city, but as it hides both shops and people from view, that is to say all that is most interesting to the stranger, it gives a character of great monotony; and it is only when, mounted upon an elephant's back, he can overlook these barriers, that he is able to form an idea of the really crowded capital.

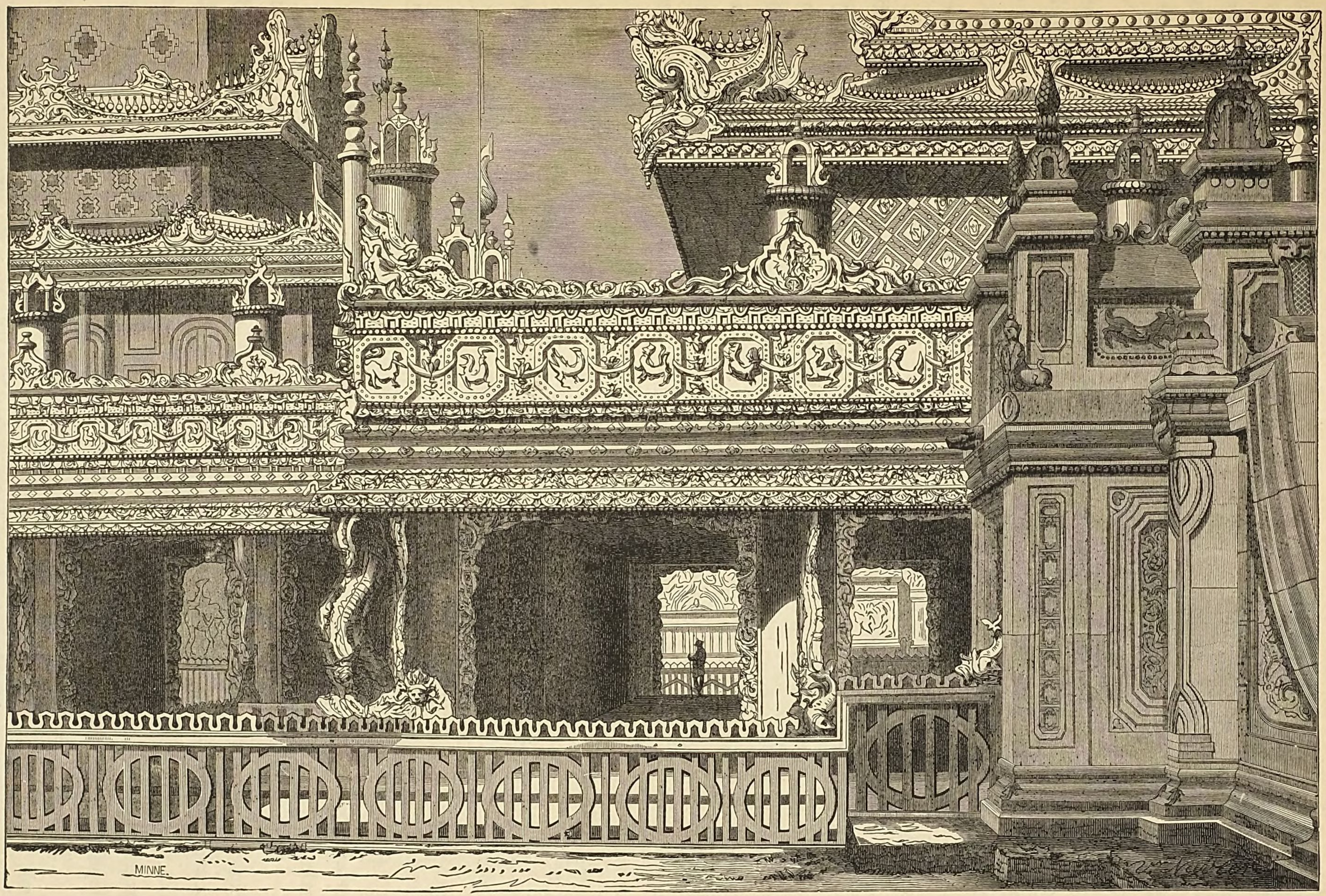
The illustrations, pages 227 and 229, represent two of the most remarkable examples of Burman architecture, situated at a little distance from the city. They were built, one by the present queen-dowager, the other by her daughter, the wife of the reigning king; and their recent construction explains their yet perfect preservation, despite the rapid decay of all wooden buildings in a country like Burmah.

Within their enclosure are numberless monasteries and chapels; in the centre is a *kyoung*, or vast sanctuary, about three hundred feet in length. Its one story extends like a wide terrace, on which the various lesser structures rear their quadruple roofs. From the balcony upward all is gilded; coping, balusters, and roofs are covered with sculptures. But it is especially in two little buildings near the central *kyoung* that the Burman artists have displayed all the luxury of their imagination.

In the Maha-Toolut-boungyo, the sanctuary retains the form usual in monasteries, but it is carved as if it were an ivory shrine, and almost covered with the richest gilding. The coping, carved to represent gigantic imperial crowns, is supported by fantastic dragons, which, with bent heads, appear to gnaw at the beams they grasp in their mighty claws, while their tails seem to wave in the air.

The quadruple roofs, covered with zinc, glitter as if they were of silver; and the walls, encrusted with mosaics, glass, and gilding, sparkle like a sea of light covered with a golden network. Even the ladders which serve to give access from one roof to another, are covered with gold and glass. Along the basement is a series of curious carvings, representing types of different nations, — Burmans, Chinese, and one Englishman! The latter, with his dog and gun, is an amusing caricature, not entirely destitute of truth. In the interior of the building are curious figures of animals conversing among themselves, recalling illustrations of La Fontaine.

The Maha-comiye-peima, resembling the other in general plan, is even more elaborate and splendid. In this edifice the three bell-towers are not gilded, doubtless in consequence of the civil wars of 1852. The contrast between the dull color of the teak-wood and the lustre of the gold produces a charming effect. The basement story, instead of being completely gilded, has panels of scarlet lacquer, with borders carved and gilded. The pilasters are united to each other by golden filigree work of exquisite delicacy and finish. The corbels which support the copings of the terraces are different from those of Toolut-boungyo, consisting of human figures with animals' heads in various attitudes of dancing, and covered with gilding and mosaics.



MAHA-COMIYE-PEIMA.

The balustrades of the balcony are wonderful. They are not, as ordinarily, pilasters of wood or carved panels, but wide bands of sculpture, artistically enlaced with one another ; at their points of contact, curious fantastic figures stand forth, which, if not perfectly well executed, have at least much spirit and originality. Along and under the balcony is a coping in exquisite taste, consisting of carved bands, which repeat the designs of the balcony, and are entwined around shields.

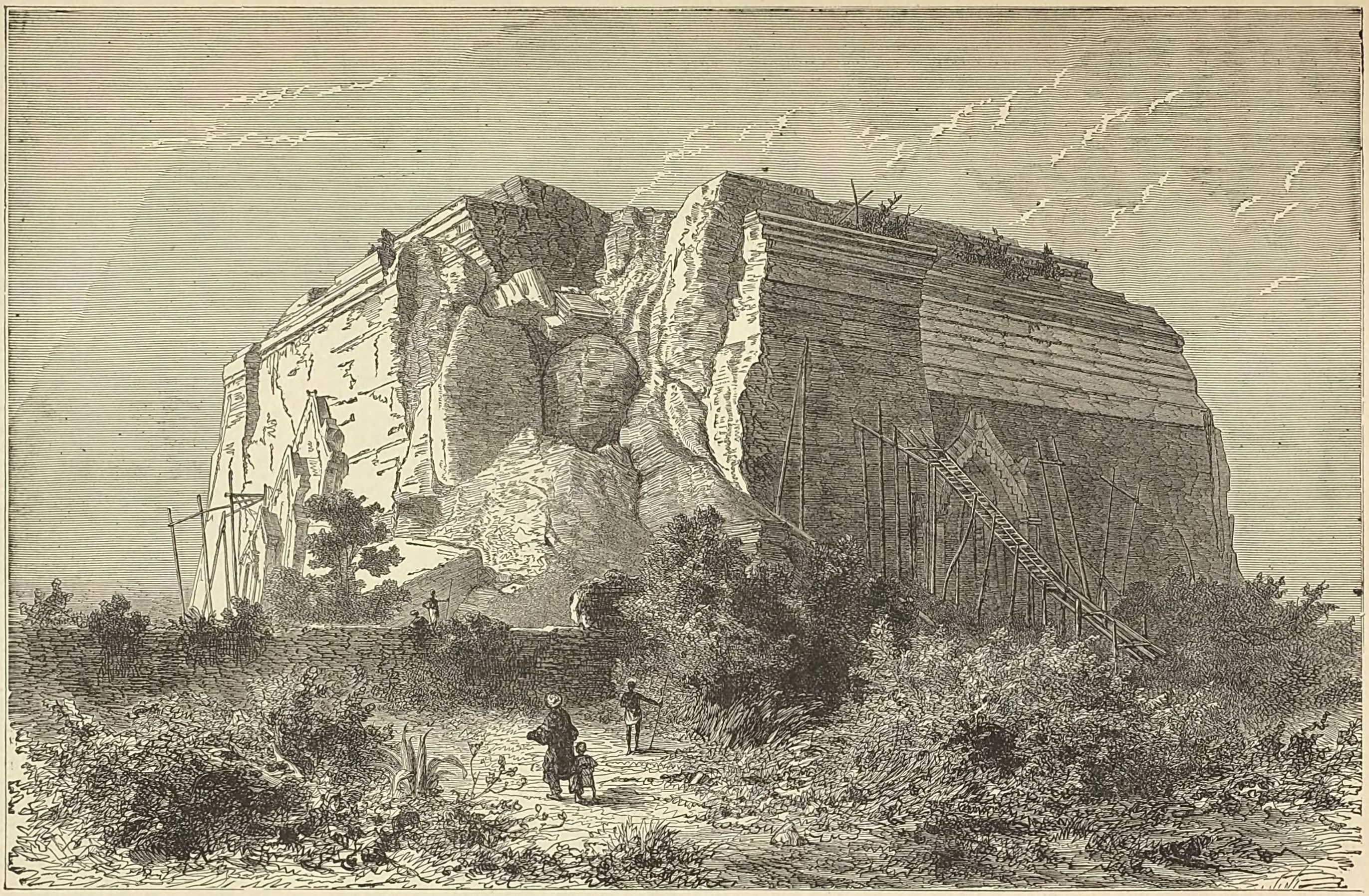
Interlaced serpents, enamelled in colored glass, with bouquets of flowers in their mouths, similarly designed, form the stair railings ; and the walls of the upper stories are adorned with crystal mosaics, while the copings and summits of the roofs are of exquisitely carved wood. These *kyoungs* fill the mind with wonder. We ask ourselves in vain how was it possible for a people having so few resources in respect to tools and implements to produce monuments of skill and taste so precious as these.

In odd contrast to these delicate structures is the Temple of Mengoun, eight miles from Amerapoora, an edifice known by the characteristic name of King Mentaragyi's Folly. This grandfather of the present king employed three quarters of his forty years' reign, the weary and unrequited toil of thousands of his subjects, and incalculable sums of money, in heaping up masses of brick and mortar to a height of five hundred feet. It is said a prediction had united the close of his reign with the termination of his architectural labors. But he left the latter unfinished, and twenty years after, the terrible earthquake of 1839 reduced his temple to the mountain of débris which the photographer's art permits us faithfully to reproduce on the opposite page.

The geological formation of the region watered by the Irrawaddy is very simple. From the delta of the river as far as to the neighborhood of Amerapoora the rocks are of tertiary formation. Sometimes the current forces its way through gorges in these rocks, as below Prome ; sometimes it traverses extensive plains resembling beds of ancient lakes. The general stratification is parallel with the river, although at certain points the strata present obstacles to the current which has been obliged to make its way through deep beds of bluish clay, and even of solid sandstone.

This being the general character of the river basin, it is important to observe that the strata are often dislocated, contorted, and broken. Resting upon these dislocated formations is a series of strata of sandstone and conglomerate, less solid than the preceding, but also less interrupted. Often sandy, and at times calcareous, these strata are full of infiltrated iron, and also contain innumerable fossils of mastodons, elephants, the rhinoceros, tapirs, stags, and turtles.

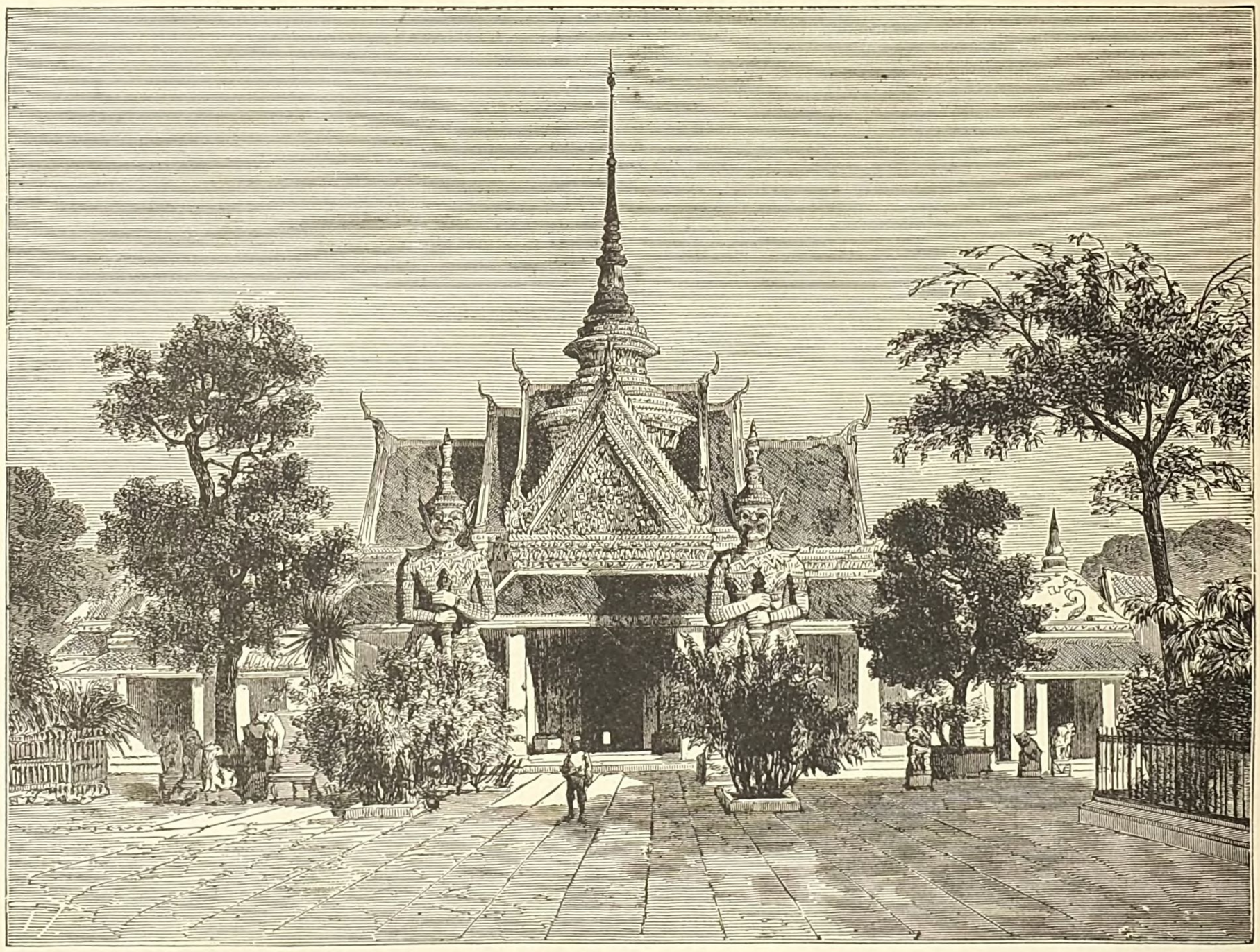
Near the capital we find chains of metamorphic and crystalline rock, running north and south, and forming a series of low hills. It is presumable that they are of earlier formation than the tertiary rocks which surround them. There are also trap dykes, evidently owing their origin to the subterranean forces that yet work beneath



THE TEMPLE OF MENGOUN.

the soil of Burmah, shaking it from time to time, and notably in 1839, when they bent down like ears of ripened corn, the gigantic temples of Pagán and Mengoun. The same incandescent laboratory whence were thrown out, in earlier ages, the sparkling rubies of Momeit, and the gold which all the Burman streams bring down in their sands, supplies those vast reservoirs of mineral oil which make the chief riches of the valley of the Irrawaddy, and those volcanoes of boiling mud which bubble up in new cones every day upon the plain of Membo.

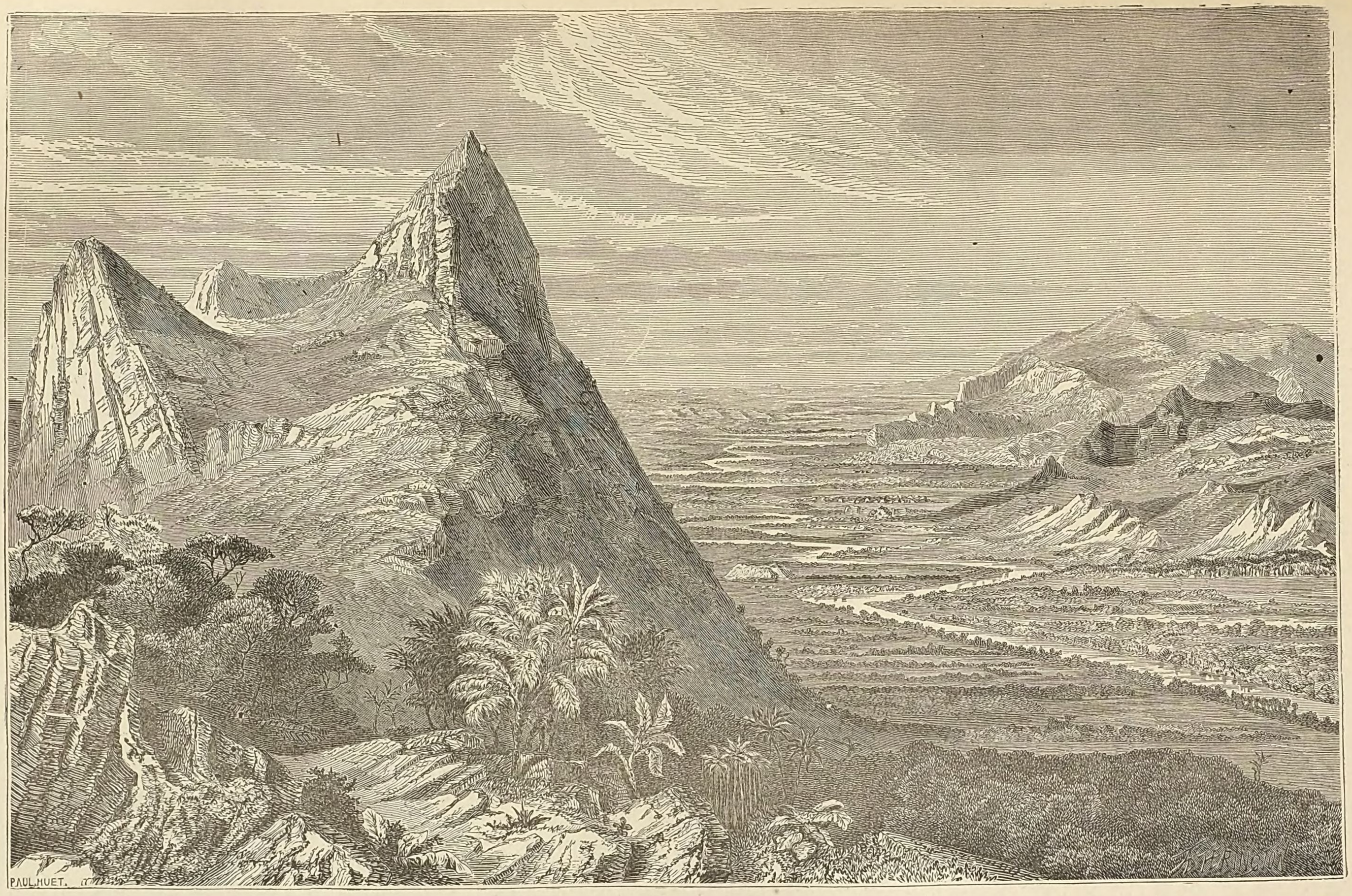
At the mouth of the second great river of Indo-China is Bangkok, the Siamese capital, and the basin of this river, the Menam, is the natural geographical extent of



Palace. Bangkok.

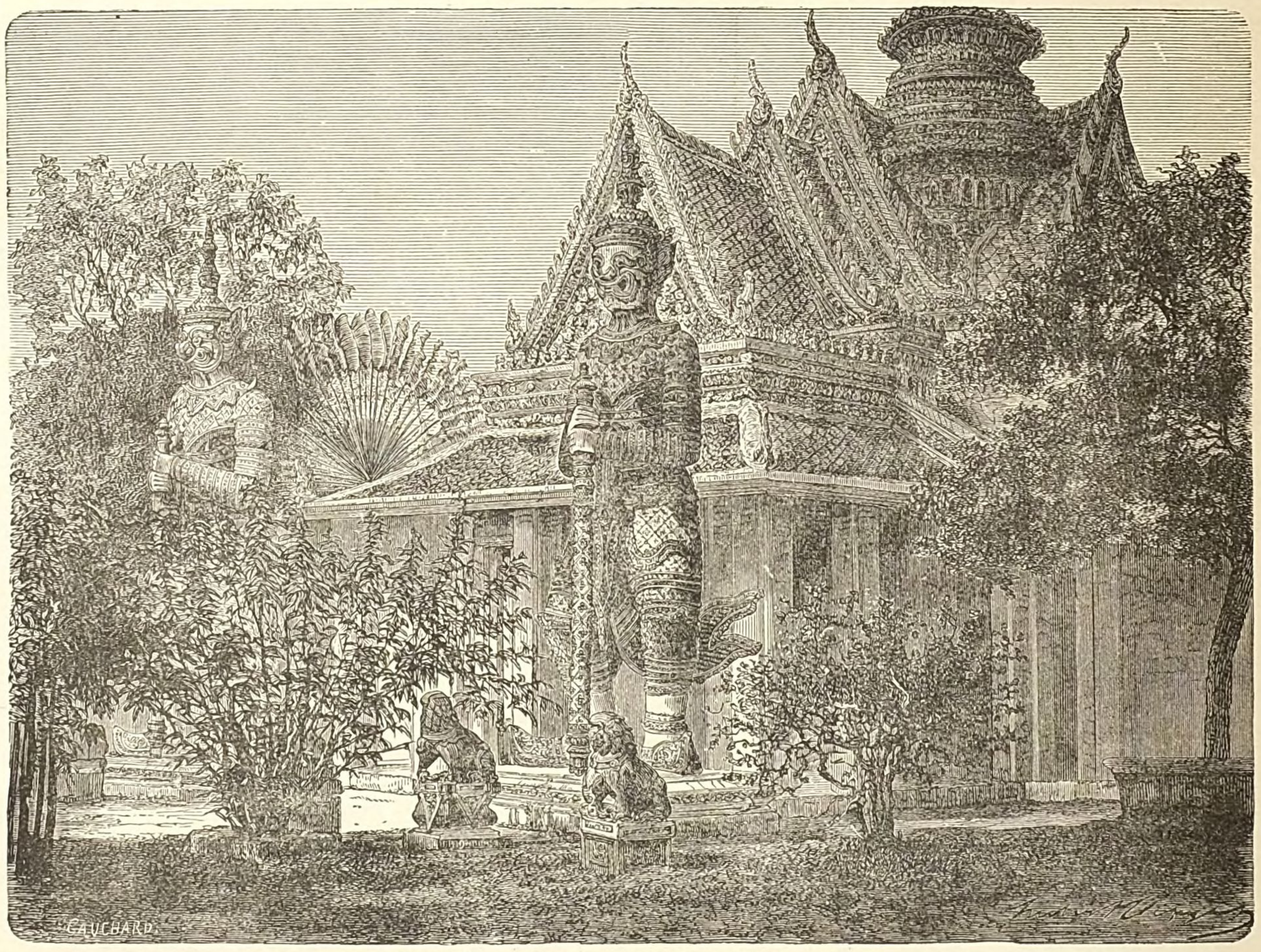
the kingdom. All the central part of this basin is an alluvial plain, cut by intersecting streams, and under water for many months every year.

The environs of Bangkok are, in every direction, as far as eye can see, as flat as the Dutch *polders.* The city itself rests upon an archipelago of muddy islets, which the main stream of the Menam divides into two groups. That on the right deserves no higher appellation than suburb, for the huts of the common people, gardens, and marshes prevail in it. Pagodas and the dwellings of the great are rare. On the left of the river is the city, properly so called, surrounded with crenellated walls, and flanked with towers and bastions, covering a space six miles in circuit.



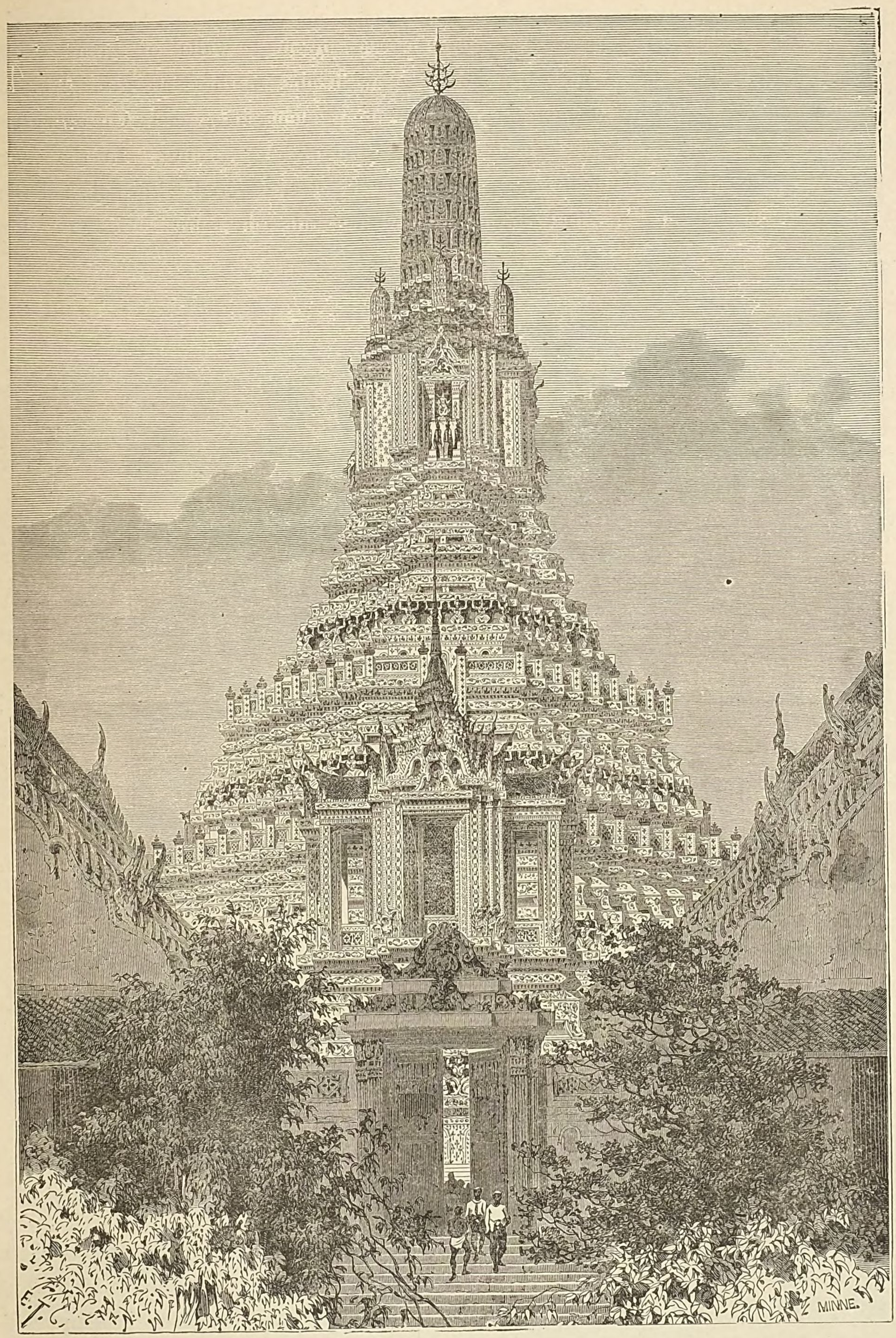
VALLEY OF THE IRRAWADDY.

Between the city and the suburb thousands of booths, floating upon rafts, stretch away in two rows, following the windings of the river, which is furthermore encumbered by countless boats of every size and shape. The busy life and industry going on upon the water is the first thing which catches the traveller's notice when he enters the Siamese capital. Another strange impression is added to this : there is no sound in all the town of wheels or horses' feet. For business or for pleasure, one is obliged to take a boat upon the river. Bangkok is an Oriental Venice; everywhere is heard the noise of oars and anchors, the sailor's song, or the cry of Sepoy boatmen. The river is the great boulevard, and the various canals serve as streets and



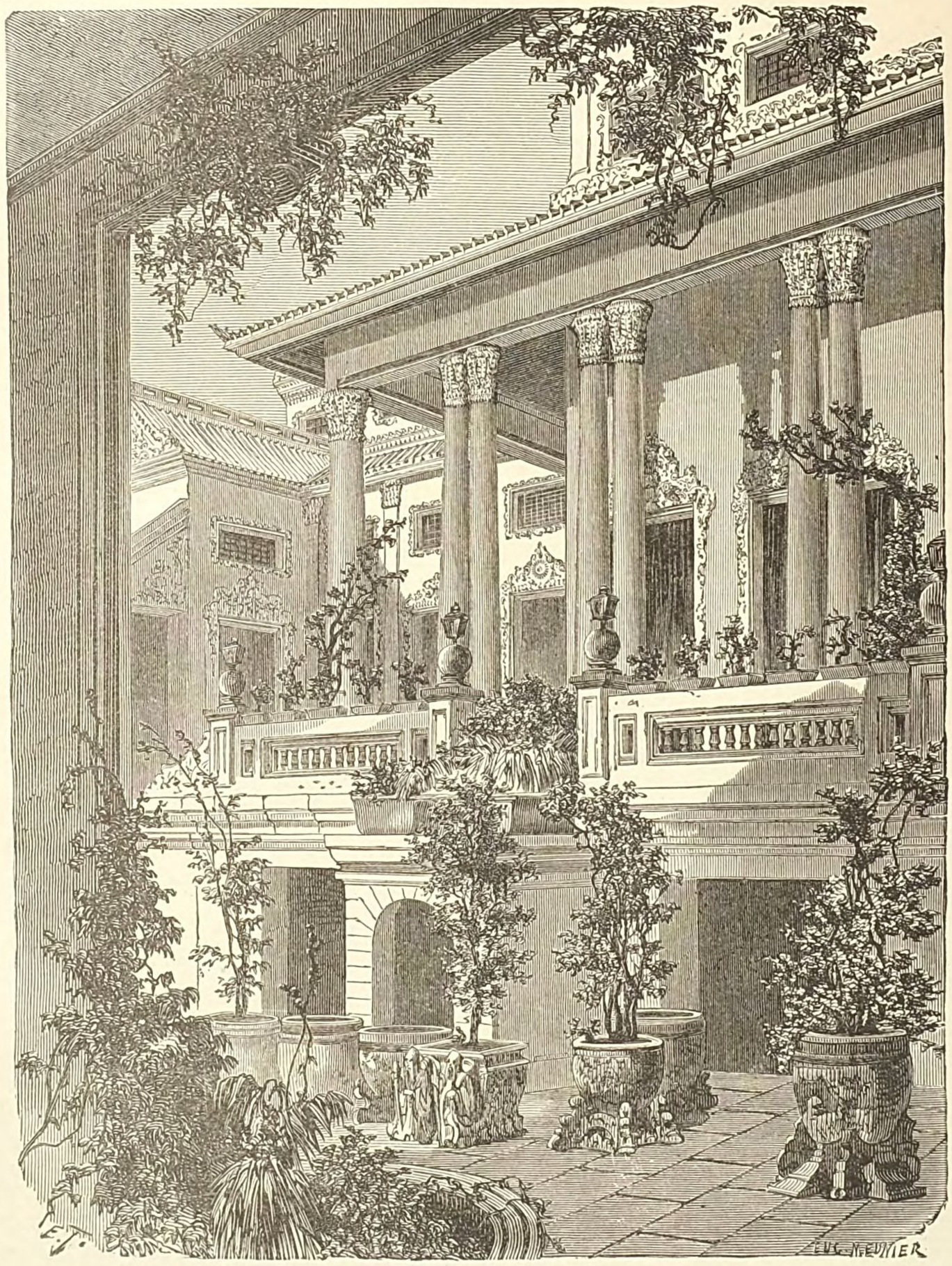
Royal Audience Hall. Bangkok.

lanes. The observer has only choice of two attitudes, — to lean from his balcony, or to glide silently over the water, lying in the bottom of his little craft, and linger with fascinated eye upon the palaces and pagodas that fling aloft, above the eternal verdure of tropical vegetation, their gilded spires, or rear their polished domes and lofty pyramids, carved in open-work cut out delicate as lace, reflecting all the rays of the sun, all the colors of the rainbow, from their crystal and porcelain veneering. This "Arabian Nights'" architecture, the infinite variety of buildings and costumes, indicating the diversity of nationalities gathered here, the incessant sound of musical instruments and the tumult of scenic representations, produce an effect both novel and pleasing, and without counterpart anywhere in the world.



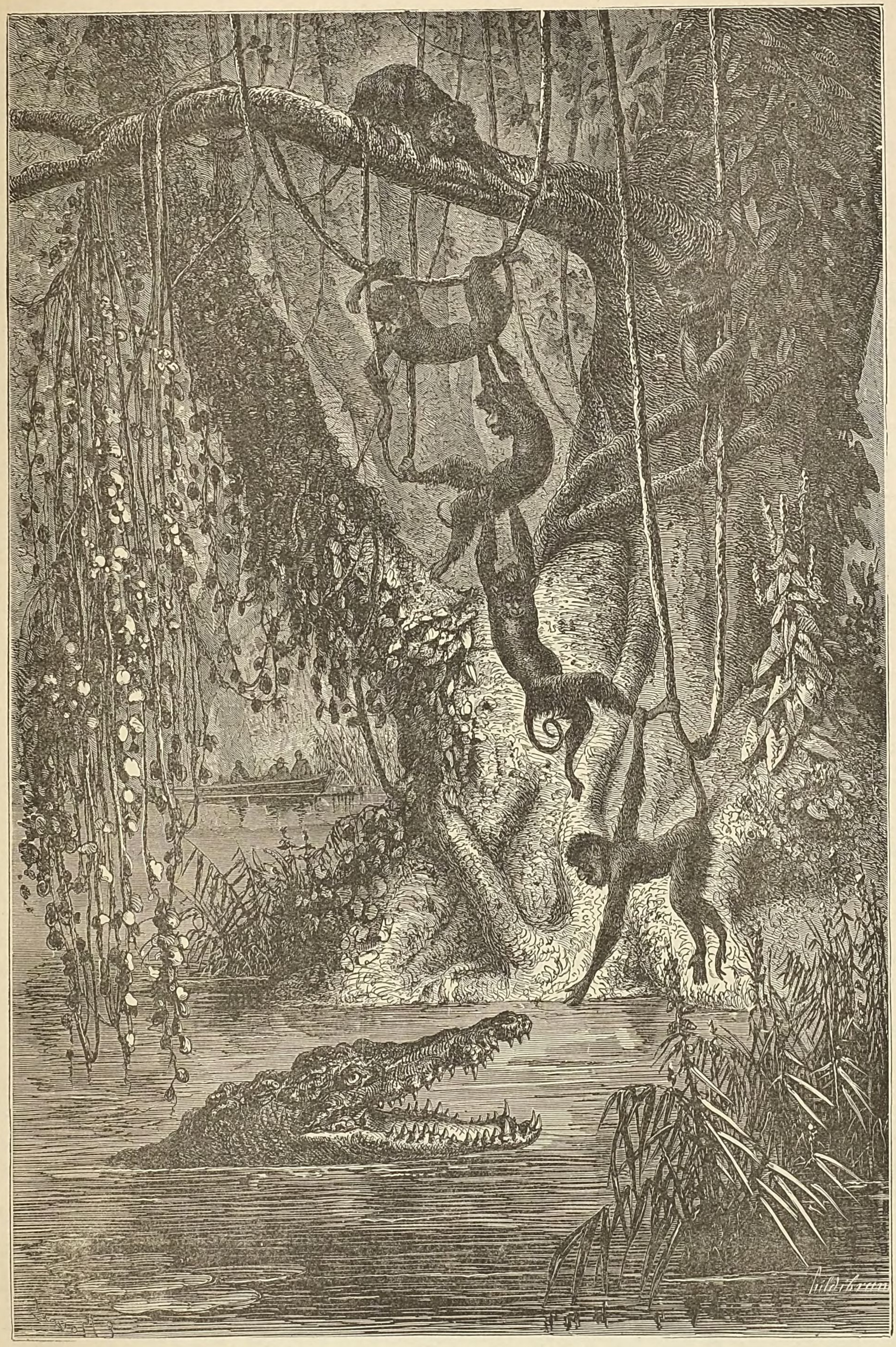
PAGODA OF WATT-CHANG.

The royal palace (see page 232) is enclosed by high walls of great extent. Within the walls the whole enclosure is paved with fine marble and granite blocks. There are military posts and cannon in position at frequent intervals. On every side are seen elegant little buildings decorated with painting and gilding. In the centre of the great court is the audience-hall, with four façades, covered with polished tiles, adorned with superb carvings, and surmounted with a tall gilt spire. Here the king



Royal Recreations.

receives foreign ambassadors. Not far is the great hall, where the king gives daily audience in presence of more than a hundred mandarins, who lie prostrate upon the ground at his feet. At the door are two gigantic statues of granite, which were brought hither from China. The walls and columns of this hall are brilliant with color and gilding, and the throne, which is shaped like an altar, has a seven-storied canopy above it.



MONKEYS TEASING A CROCODILE.

The royal apartments are adjacent ; then come the palace of the queen and the houses of the ladies of honor, and an immense garden, said to be magnificent. Besides these, there are extensive buildings containing the royal treasure, — gold and silver, jewels, furniture, and valuable apparel.

Within the palace-walls there is a court of justice, a theatre, a royal library, immense arsenals, stables for the royal horses, and store-houses for all kinds of valuables. There is also a superb pagoda, the floor covered with silver mats, containing two statues of Buddha, one of solid gold four feet high, the other made of a single emerald, more than an arm's length in height, valued by English visitors at two hundred thousand piastres.

The royal pagodas are of incredible magnificence. Some of them have cost as much as two hundred silver quintals, — that is to say, a million of dollars, which, considering that labor costs nothing to the king of Siam, leaves the value of the materials used at a very high figure. There are eleven of these pagodas within the city limits, and twenty without. The pagoda Xetuphon contains a statue of the sleeping Buddha, a hundred and fifty feet long, entirely covered with gilding ; in the pagoda of Borovanivet, more than four hundred and fifty ounces of gold were used in gildings only. A royal pagoda is a great monastery where four or five hundred priests are lodged with their attendants. It is really a vast garden, where amid trees and flowers stand many elegant buildings : a score of Chinese kiosques; many great halls ranged along the bank of the river ; a large audience-room for preaching; two fine temples, — one for the statue of Buddha, the other a praying-place for the bonzes ; two or three hundred pretty little dwelling-houses occupied by the priests; ponds and parterres; a dozen pyramids, gilded and covered with tiles, some of them two or three hundred feet in height; a bell-tower; flag-staffs surmounted by gilt swans, and bearing crocodile-shaped flags; statues of lions and giants in Chinese granite; and, at the two extremities of the enclosure, canals lined with masonry, boat-houses, and a funeral pile whereon to burn the dead. Add to this that the temples are a glittering mass of painting and gilding, and the colossal idol is all gold and jewels, and one may form an idea of what is understood in Siam by a royal pagoda.

The finest of these establishments, that of Watt-Chang (see page 235), stands upon the right bank of the river, and its spire, two hundred feet high, is the first indication of the city seen by the traveller as he approaches Bangkok from the sea.

More recently a pavilion has been erected by the King of Siam, entirely in the Italian style, with colonnade and peristyle (see page 236), bearing a Sanskrit inscription upon the portico, which may be translated, "Royal Recreations." Within, the building consists of a suite of rooms resembling those of a European house, filled with mirrors and French clocks, drapery and furniture of the latest fashion, curiously

VIEW AT THE MOUTH OF THE RIVER LAIGON.

intermingled with philosophical and chemical apparatus, globes and maps, the photographer's camera, and stuffed specimens of natural history.

From Bangkok, a voyage along the coast of the Gulf of Siam brings the traveller at last to Saigon, the French seaport of Cochin-China, lying in the delta of the Makong, the third great river of the peninsula, and the one by which access is obtained to the inland region of Cambodia and the wonderful ruins of Angcor.

On the way, however, many towns and small rivers attract notice, and one is well repaid for delay by a thousand interesting and curious scenes. Nothing is perhaps more amusing than to watch the freaks of the monkeys, which abound in this region; and such a scene as the one represented on page 237 may any day be witnessed in places where the crocodiles are numerous. These amphibiæ frequent the low river banks under trees haunted by troops of malicious monkeys, and the latter

The Cataract of Khon.

delight to swing downward and tease the crocodile, extending and withdrawing a little black hand within an inch of his mouth. The monster snaps his huge jaws in vain, and the monkeys greet his failures with derisive chatter; but sometimes they swing too low, and the teasing hand is caught as in a trap. With the rapidity of lightning the little animal is drawn under the water, and with shrieks and moans the frolicsome group in the trees disperses, not, however, so dismayed but that they will recommence their amusement whenever the occasion offers.

The French colony of Cochin-China is in possession of the delta of the Makong, and great hopes were at one time entertained by the home government that this river would prove to be a navigable stream all the way from the Chinese frontier. In this hope a commission was dispatched to examine the river, and it was explored nearly to the frontiers, at a great sacrifice of brave and valuable life, only to satisfy

themselves that it is "an impassable stream," broken at least three times by furious cataracts, and having a current against which nothing could be navigated.

In following the course of the river in the little boats of the country, the French explorers frequently turned aside into some lateral arm where the current was less violent, and sometimes even made their way amid the trees of inundated forests. After ascending it about four hundred miles, they came to the Cataract of Khon, a scene of the wildest grandeur. For a distance of five miles the Makong is a series of foaming rapids, which here and there are interrupted by sheer leaps of forty or fifty feet. The river is here very broad, and rocky islands, covered with vegetation, divide each fall into eight or ten separate cascades.

The illustration on page 239 represents the tranquil scene amid which this tumultuous water at last finds its way to the sea. For the delta of the Makong, let the reader imagine a country perfectly flat, cut by the magnificent arms into which the great river divides, extremely well wooded with palms, bananas, and all the luxuriance of tropical growth crossing and interlacing in every direction. Beneath this roof of verdure are scattered here and there cabins of bamboo and clay, about which wander, on terms of entire equality, many living creatures: first, various specimens, more or less filthy and unattractive, of Adam's race; then, gentle, mild-eyed buffaloes, enormous swine of a peculiar breed; and lastly, numberless fowls of that variety which the exhibition of 1855 has made so popular in the western world. This, under the fervid sun of the tropics, is the picture which meets the eye of the traveller, who, by way of the Saïgon, or any other of the arms composing the delta, seeks entrance to the native land of the Cochin-China fowl.

The French exploration of the Makong resulted, as we have said, in disappointment; but incidentally it had one result which amply justified the expense and effort of the whole expedition. This was the exploration of the ruined cities of Cambodia. Historically less important than the buried cities of Assyria, they are, in an architectural point of view, far more extraordinary, and reveal a state of civilization which may well excite our astonishment.

As early as the thirteenth century, a Chinese writer describes these cities, especially Angcor the Great, or Angcor Thom, as in a state of great prosperity. Two centuries and a half later Ribadeneyra visited them, and found them in ruins. Since that time, at rare intervals, travellers have caught a glimpse of wonderful buildings buried in jungles, and have kept alive an interest among archæologists in respect to these far-off and hidden treasures, gratified at last by a thorough and minute examination of them.

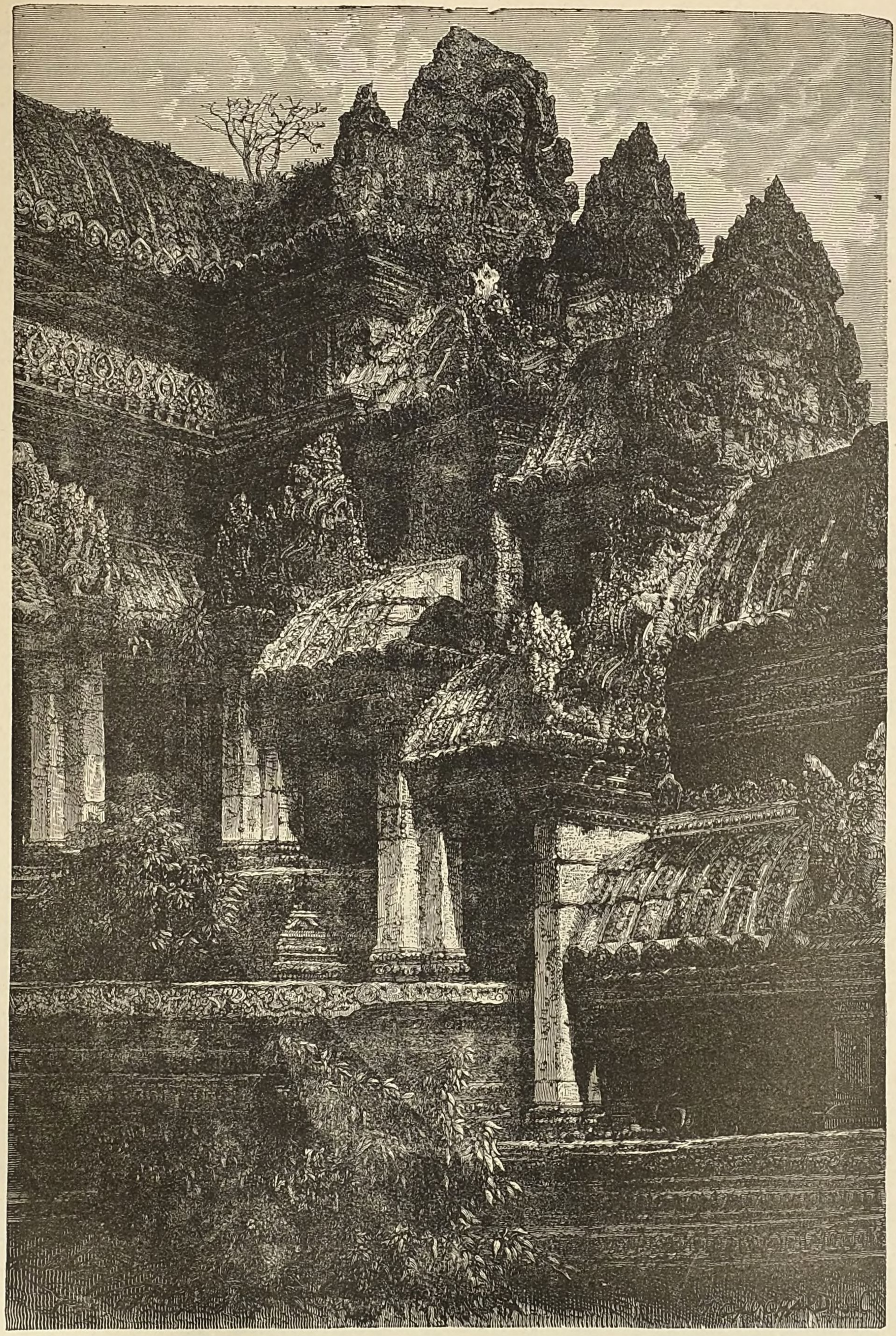
Four miles south of Angcor the Great is the temple, to which all accounts refer as the most important of all the existing ruins. Of this we present an illustration, reproduced from a photograph, for the purpose of showing the exquisite finish and

minute detail of the work. The general plan of the temple consists of three rectangular and concentric inclosures composed of galleries or verandas, and each fifteen or twenty feet higher than the one outside it, giving to the whole mass, as seen from without, a pyramidal form. The first of these inclosures measures thirty-two hundred and forty feet by thirty-three hundred, and outside of it is a moat six hundred and ninety feet broad. This moat is crossed by a superb causeway of great blocks of sandstone, and adorned with pillars and fantastic dragons at regular intervals. In the first inclosure is a gateway not unlike the gopura of a Dravidian temple, five stories nigh, and extended by lateral galleries and towers into a façade more than six hundred feet long.

Passing through this portal, the road continues to the next inclosure, where it ends before a second terrace supported by round columns elegantly sculptured. From the second to the third terrace a great flight of steps leads up, and the terrace itself is crowned by a central tower, which, although the upper part has been destroyed, stands yet about a hundred and ninety feet above the level of the road. Besides this central tower, eight others rise from various portions of the building, all conducing to the pyramidal effect, which seems to have been the leading idea.

All the three terraces are surrounded by galleries or colonnades, which are open to the air with the exception of those of the second story, and nowhere in all the immense structure does there seem to have been made any provision for human abode. The whole building appears to have but one object or end in view, namely, to be the entrance to the quadruple sanctuary established at the base of the central tower. From whichever of the cardinal points the temple is approached, everything leads towards one of the four enormous statues over the four sides of this tower. Nothing arrests the explorer till he finds himself at the entrance of the sanctuary.

The central tower is two hundred feet long and two hundred and thirteen wide. In it no divinity is found, for the reason that this temple manifestly was dedicated to the snake-worship peculiar to some branches of the Turanian family, and its gods suffered from the disadvantage of being eaten up one by another, or dying from natural causes. But all through the enormous structure are the tokens of its destination. "Every angle of every roof," says Fergusson, "and there are hundreds, is adorned with an image of the seven-headed snake; every cornice is composed of snakes' heads; every convolution of the roof — and there are thousands of them — terminates in a five or seven-headed reptile. The balustrades are snakes, and the ridge of every roof anciently was adorned with a gilt dragon." There is, therefore, no divinity in the temple, but at present it is occupied by Siamese bonzes, who maintain the worship of Buddha, and take what care they can of the vast edifice. They are too few in number to do much, but they sweep out the most frequented central galleries every day, and now and then pull up the grass which grows between



ANGCOR WAT.

the stones. The rest is completely abandoned to the inroads of the luxuriant vegetation of the tropics and to bats and night-birds, which make their home by myriads under the roofs of the colonnades.

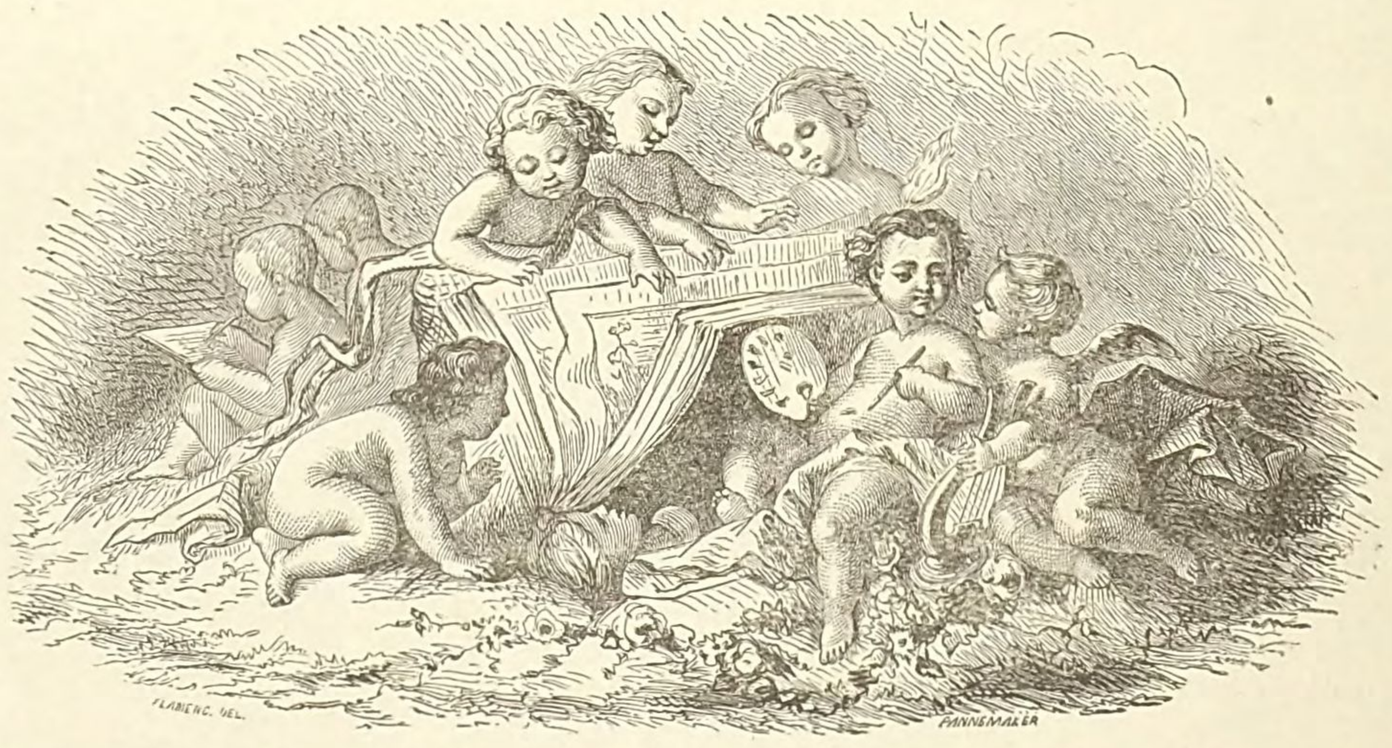
A few words of description must be given to these galleries, which are the most remarkable feature of Angcor Wat. Their mechanical arrangement is as perfect as their artistic design. On the inner side they are formed by a solid wall of the most exquisite masonry, supporting the interior terrace of the temple. This wall is built of large stones put together without cement, and so exquisitely fitted that it is difficult to detect the joints between the stones. Ten feet and a half in front of this wall stands a range of square piers, resembling the Roman Doric order, with capitals similar to the classic examples, but more ornamented. These pillars have no bases, but at the foot of each is carved on the four sides, a figure of a devotee or worshipper, surmounted by a canopy of incised ornament, which is also carried along the edge of the shafts. The pillars support an architrave and a deep frieze, which is ornamented with bas-reliefs of the most elaborate design, and above this a cornice of a very classical outline. This cornice is composed of infinite repetitions of the seven-headed snake. The roof of these galleries is a pointed arch made by stones projecting one beyond the other, as the old Pelasgi used to build, and as do the Indians of the present day. This was probably intended to be hidden, as it is quite plain, and in one of the galleries remains of a beautifully carved ceiling of teak-wood have been discovered. Upon the inner walls are an almost infinite variety of bas-reliefs, representing, for the most part, battle-scenes. They are distributed in eight compartments, having an aggregate length of about two thousand feet, and a height of six and a half feet, the number of figures being estimated by one traveller as twenty thousand, and by another as a hundred thousand. These figures, by their magnitude, their minute finish, and their elegant proportion, compare favorably with classic sculpture, and it is interesting to note that the principles on which this sculpture is employed differ from the Indian and from the Egyptian examples, where the figures were in high relief, forming part of the architecture, but are allied to the Greek method, in which sculpture was regarded as purely decorative, and to be used entirely within the architectural lines.

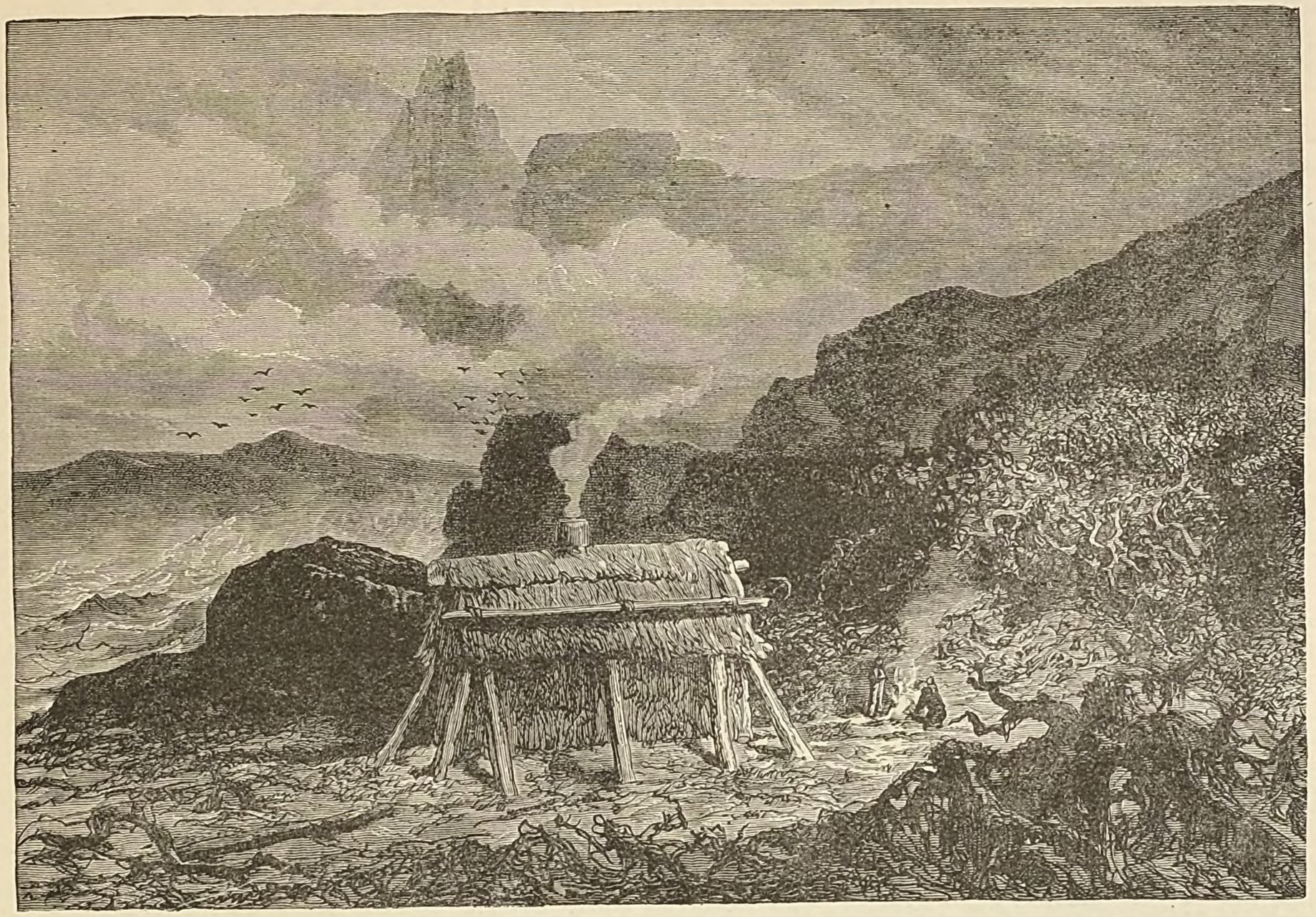
In examining this great temple minutely, the traveller is impressed with the differences existing between its different parts. The two lower stories or terraces seem designed to throw into strong relief the importance and richness of the third. As we approach the central sanctuary the decoration becomes more splendid; the chisel cuts deeper into the stone, the colonnades are doubled, marvels of sculpture burst forth on every side. What admirable arabesques are designed upon the pilasters which make the setting of the doors for the sanctuary! On the two sides the general design appears symmetrical, but a nearer view reveals the greatest differences, the most charming variety in the details; curiosity and interest are redoubled. Each one of these

THE BAION. ANGCOR THOM.

graceful interlacings, these capricious designs, appears the work of an individual artist, who, composing his own design, imitated nothing, borrowed nothing, from his neighbor; each one of these pages of stone is the feint of a delicate and original inspiration, not the skilful reproduction of a common model. Sometimes the commenced page is not completed; the stone is left rough, awaiting the chisel. The artist died, perhaps, in the midst of his work, and no one was found to take his place. It seems as if this were a fate incident to all great structures. Angcor Wat has fallen into ruins, without ever having been finished!

Even more cruelly threatened by the forces of nature is the old city Angcor Thom, or "the Great." Making his way northward through the forest, along an amazing highway, peopled with huge stone figures, — elephants the size of life, lions, dragons, — most of them overthrown and broken, the traveller reaches the city's southern gate. The forest, interrupted by the wide belt of moat which forms a kind of clearing all around the city, here becomes deeper and more gloomy. A narrow path winds between the great trees; here and there are massive stones all overgrown with moss. After a walk of three quarters of a mile, the explorer comes to a vast inclosure, within which are visible, in the distance, the towers and spires of some great structure. It is the Baion, or Temple of the Forty-two Towers, the most beautiful and extensive of the ruins of Angcor. The view of it on the preceding page represents the building as it doubtless appeared in its original splendor, surrounded by a broad moat and inclosing wall. This moat has been entirely filled up, and within the wall, the forest debris of centuries almost bars access to the main structure. But the forty-two towers are yet standing, with all their rich sculpture, and it is possible to make a thorough examination of the building. Its general plan is much like that of Angcor Wat, but it is believed to belong to a somewhat earlier date.





AUSTRALIA.

IF Captain Arthur Phillips — who landed his ship-load of English convicts, eight hundred and fifty in number, upon the south-eastern coast of the great island of New Holland, a little less than a century ago — could have divined the future of the colony then and there founded, it is probable he would have regarded those "rude forefathers of the hamlet" with considerable respect, convicts though they were.

Agriculture, and sheep and cattle raising, were the early pursuits of the Australian colonists, and a slow and steady gain in wealth and character followed their patient industry. In 1846, the population of the colonies numbered one hundred and eighty-nine thousand five hundred. In 1851, gold was discovered in New South Wales, and within a twelvemonth more than seventeen millions of dollars were exported, mostly to England, although the people of other countries were not slow in seeking a share of the spoils.

The population at once increased enormously. Melbourne, Sydney, and Adelaide, originally little seaports for the wool-trade, grew to be large cities, Sydney having, in three years from the date of the discovery of gold, attained a population of over a hundred thousand inhabitants. The great cities of the English-speaking race resemble one another all the world over, and there is

little difference to be remarked between the three Australian capitals and our own New York or San Francisco.

Outside the cities, however, the Australian flora and fauna exhibit all the peculiarities of their earliest days. The vegetation seems to be that of an earlier geological period than our own. The trees are of great size, and nearly all of them peculiar to the Australian continent. The *Eucalypti* are called gum-trees by the colonists, and often attain a height of a hundred and fifty feet, with a girth at the base of from twenty-five to forty feet. Most of these trees shed their bark annually, and hence are called "stringy-bark." Nearly all the *Eucalypti* are gum-trees,

The Eucalyptus serving as a Bridge.

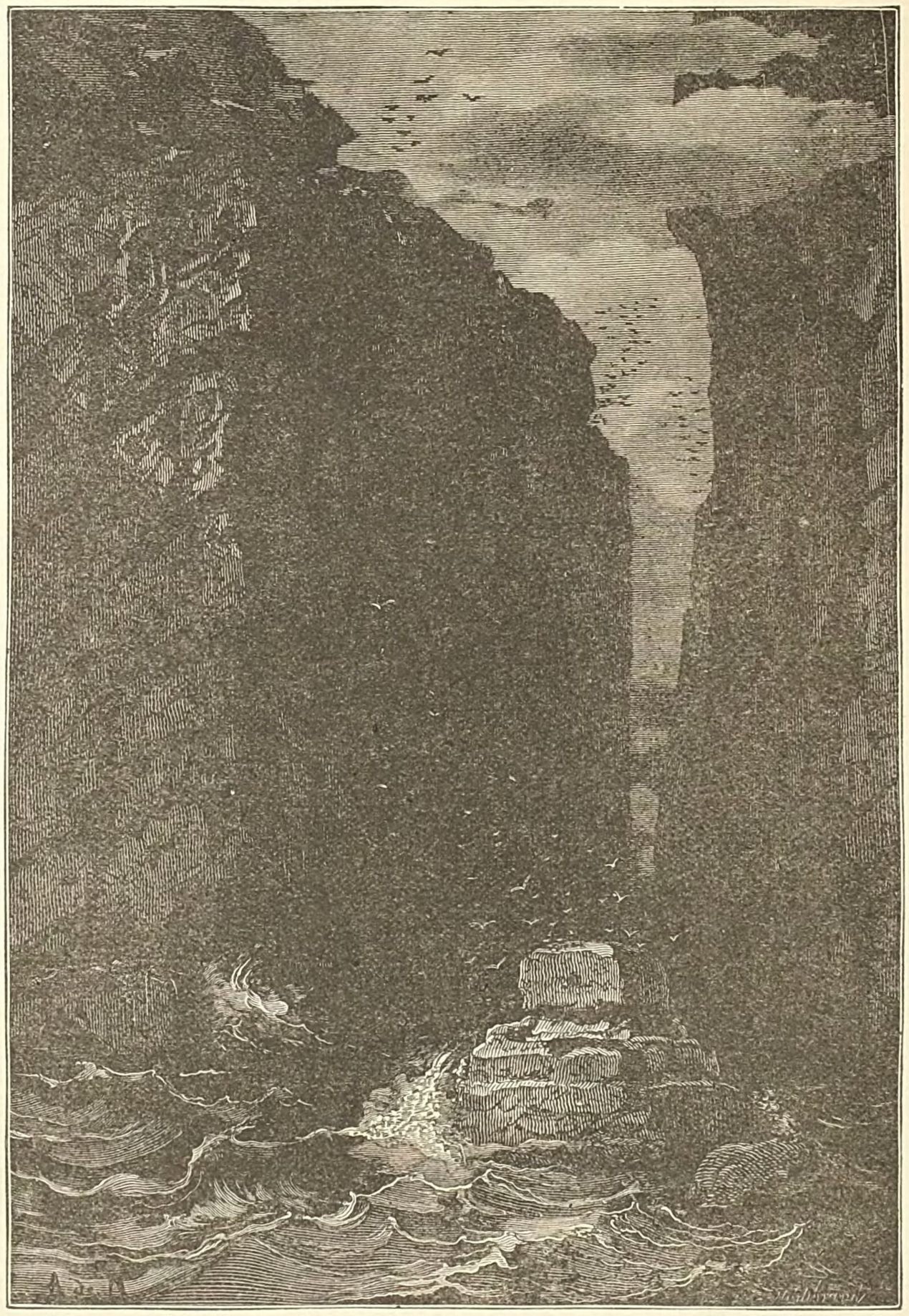
though but one kind yields pure gum, the exudations of the others being merely resins. Another yields a substance called manna, of two kinds, one pure white, the other yellow, and both extremely sweet with a flavor of almonds.

The most remarkable and beautiful of the Australian trees is, however, the fern-tree, a straight stem, twenty feet high, spreading out a crest of leaves four or five feet in length. The grass-trees have shrubby stems, and tufts of long wiry foliage, from the midst of which rise long spikes of flowers, which are used as fodder for cattle.

Of the *Eucalypti*, one called the blue gum gives a heavy, tough timber, of which

AUSTRALIAN VEGETATION.

wagons are constructed; the white gum makes flooring-boards, and the bark of the stringy-bark is used for making huts. Rosewood and sandal-wood are abundant. The lily, tulip, and honeysuckle grow large as trees, and immense numbers of prickly plants cover miles of ground in the interior. What the variety of the Australian flora is may be imagined from the fact that it contains over five thousand species of plants peculiar to the island-continent.



Australian Sea-coast.

A scarcity of fresh water, whether in the form of rivers or lakes, is one of the chief characteristics of Australia. On the southern coast, for a distance of fifteen hundred miles, there is not a single stream falling into the sea. Many of the rivers which exist are absorbed before they reach an outlet, or, in the long droughts, dry into a series of stagnant pools.

The Murray is the largest of the Australian rivers, draining, with its affluents,

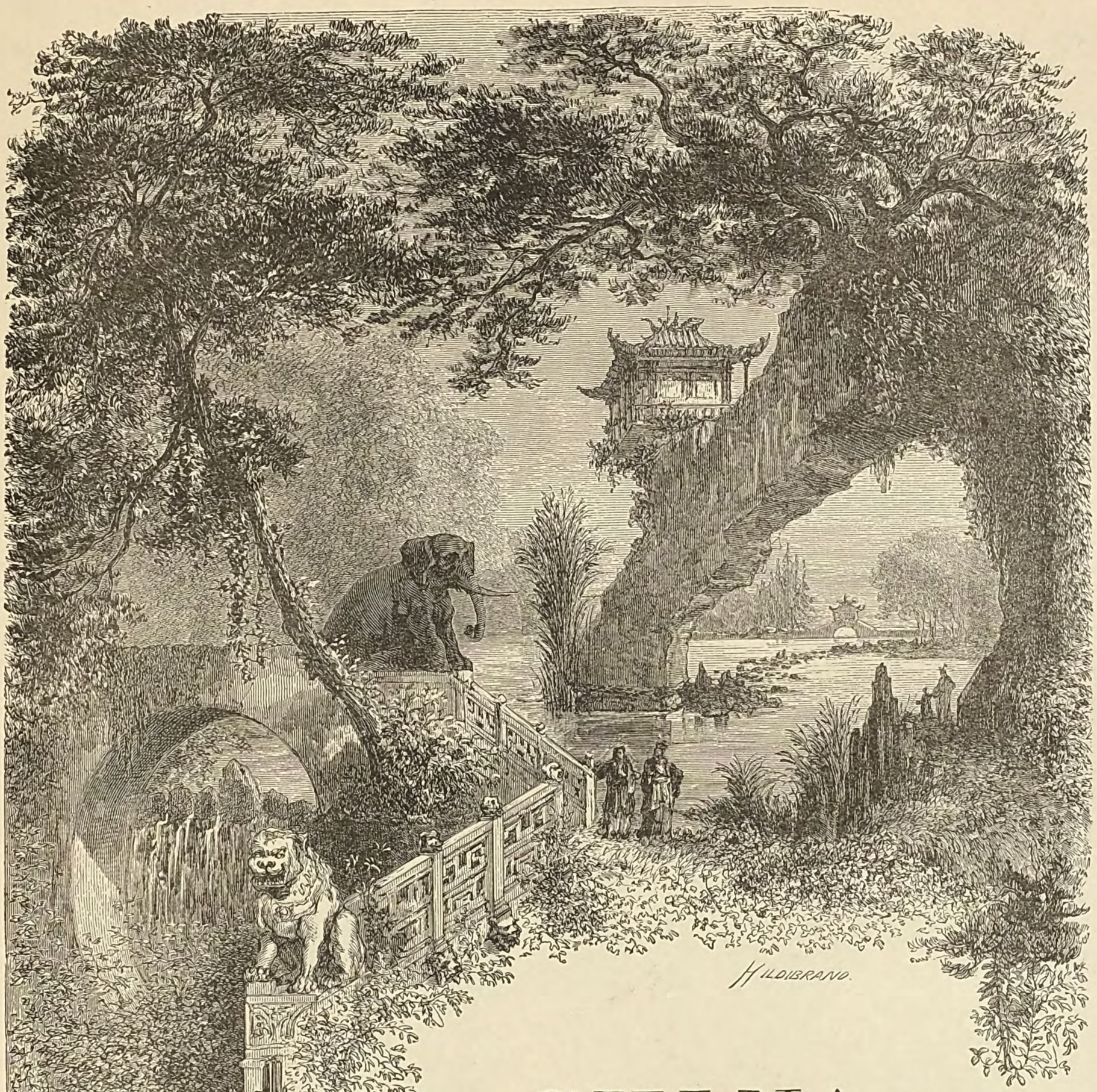
THE RIVER MURRAY IN A FRESHET.

the west slope of the Australian Alps, and flowing into the sea near the city of Adelaide, after a course of more than a thousand miles. It is a navigable stream in a great part of its length, but subject to violent freshets, and at its mouth too shallow to be entered by large ships.

Concerning the aborigines of Australia, much has been said and written by English residents. They are cruel, it is true, and possess the usual faults of savages, but they are extremely quick-witted, and notice carefully whatever they see that is new to them. Their powers of imitation are extraordinary; they can represent objects in their exact proportions, and in examining pictures that are shown them, no detail escapes their notice. Their skill in using the lance and boomerang is well known.

In the English schools which have been established for them, the native children of both sexes learn readily to read and write; they commit to memory verses of poetry and songs, and are especially successful in the use of globes and maps. A lad in the Normal School in Sydney for two years took the prize in geography, but it was impossible for him to attain the most elementary knowledge of arithmetic. The native girls learn readily how to sew and to fit garments, and boys are easily trained in farm work and the care of cattle.

It is, however, to be apprehended that the Australian race will disappear before the increasing power of the white residents, although humanity would dictate that those who seize upon their land should at least do all that is possible to communicate to them the blessings of civilization and the Christian religion.

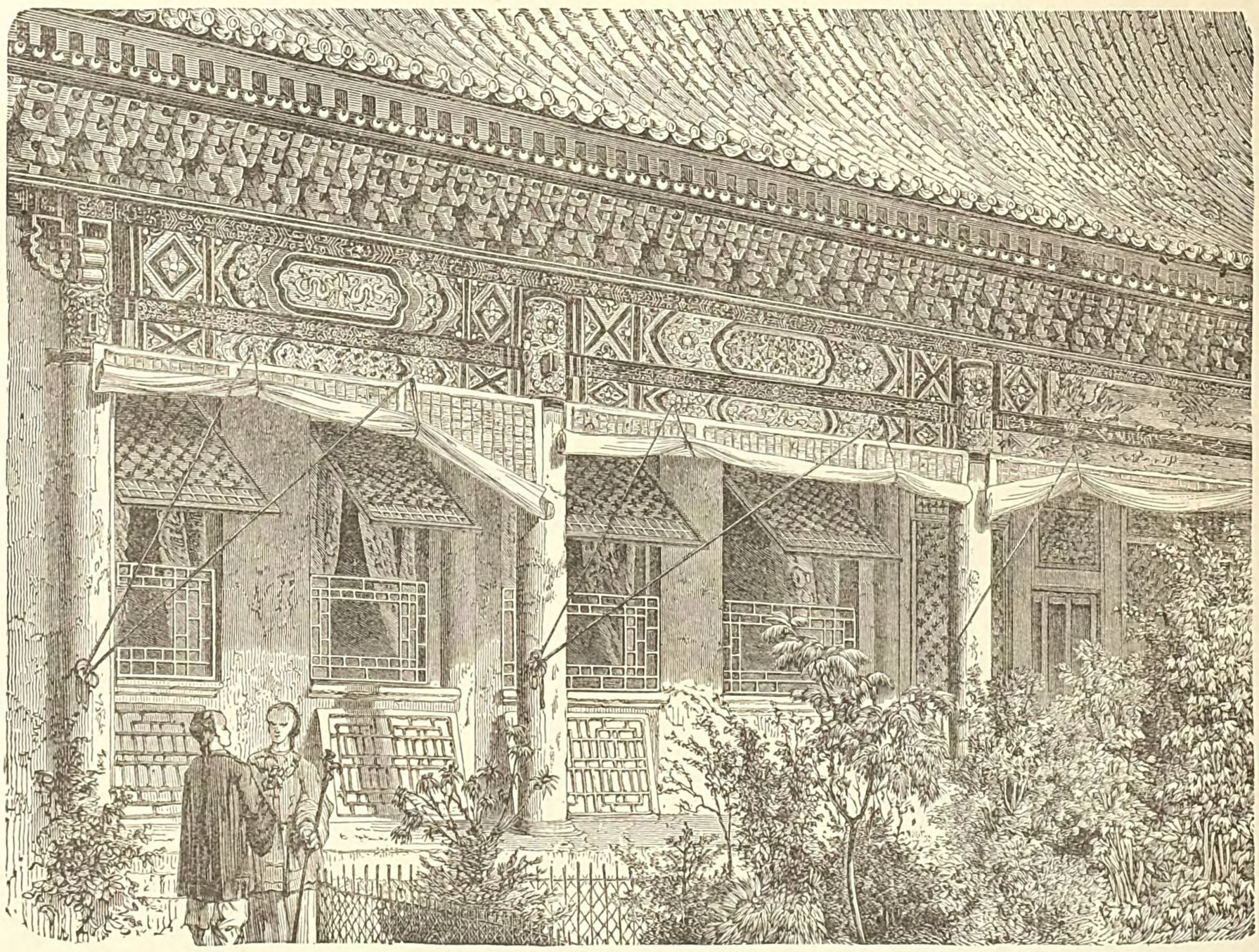


CHINA.

SINCE the days of the great Venetian traveller, Marco Polo, probably no epoch in the history of China has been so important as the present. Now, at least, for the first time, has the Flowery Kingdom been opened to the influence of Western civilization. Even the sacred Red City, the trebly fortified centre of the imperial capital, is no longer a region of mystery, and the photographer's camera has been permitted to do its work in the streets of Peking.

Shanghai, which first opened a door to foreigners, claims our first notice in any mention of the vast empire of which it is so important a seaport. Founded as a

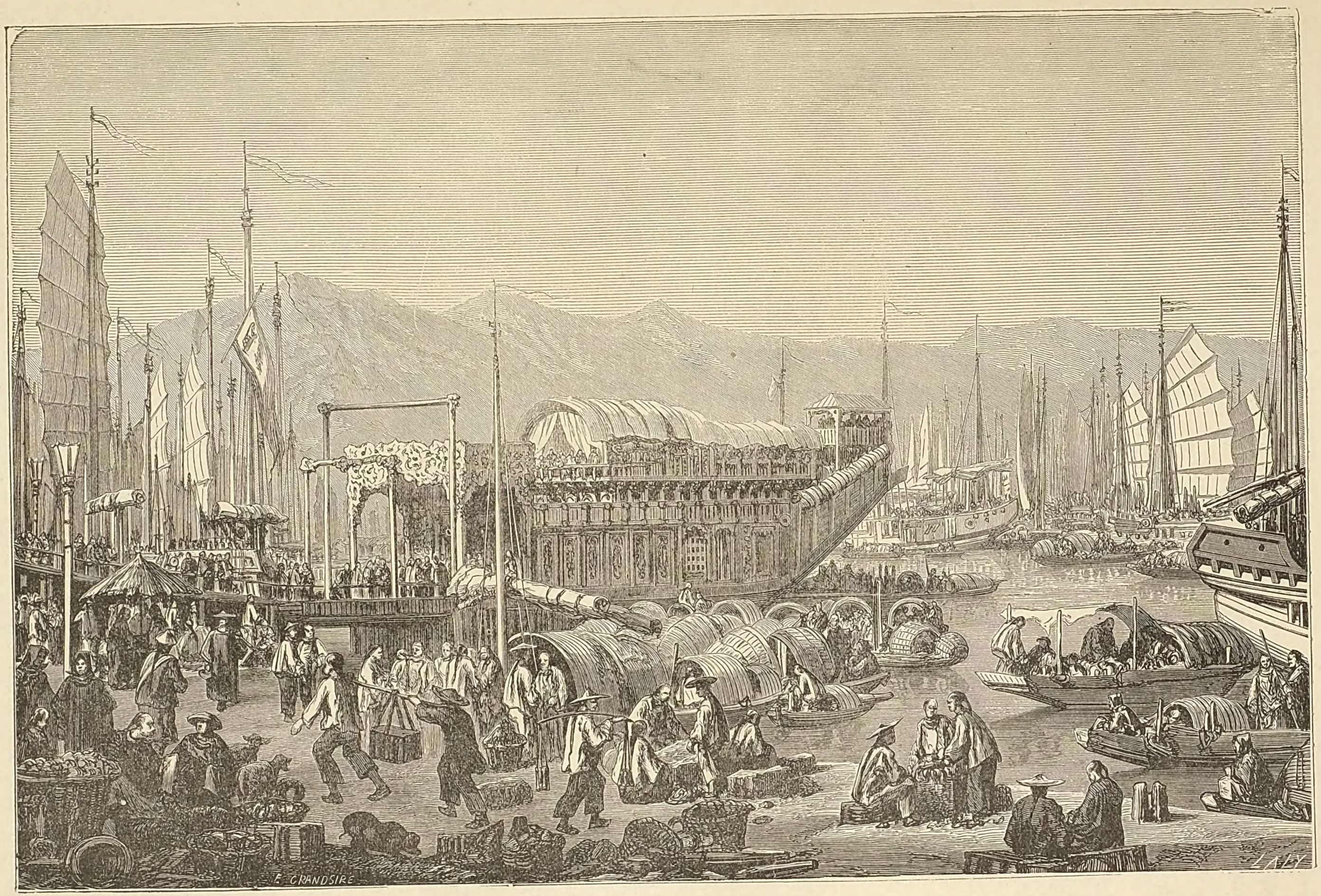
walled city in 1544, it has always held its own as the great Chinese emporium of foreign trade. In 1831, Dr. Gutzlaff, visiting the place for the first time in a junk, observes that from this port "more than a thousand small vessels go up to the north several times annually, exporting silk and other Kiangnan manufactures," and besides, that an extensive traffic was carried on with the Indian archipelago. Since that time the ships of every commercial people in the world have visited Shanghai; and now the approach by river looks almost like that of a prosperous European seaport. Ocean steamers, in long line, lie anchored in the channel, and steam-launches dart in and out among the crowd of native craft that are seen around, with their



English Legation.

brown sails and curious, uncouth shapes. As far as the eye can reach, the broad river is crowded with vessels, and at the wharves the loading and discharging of cargoes goes on incessantly.

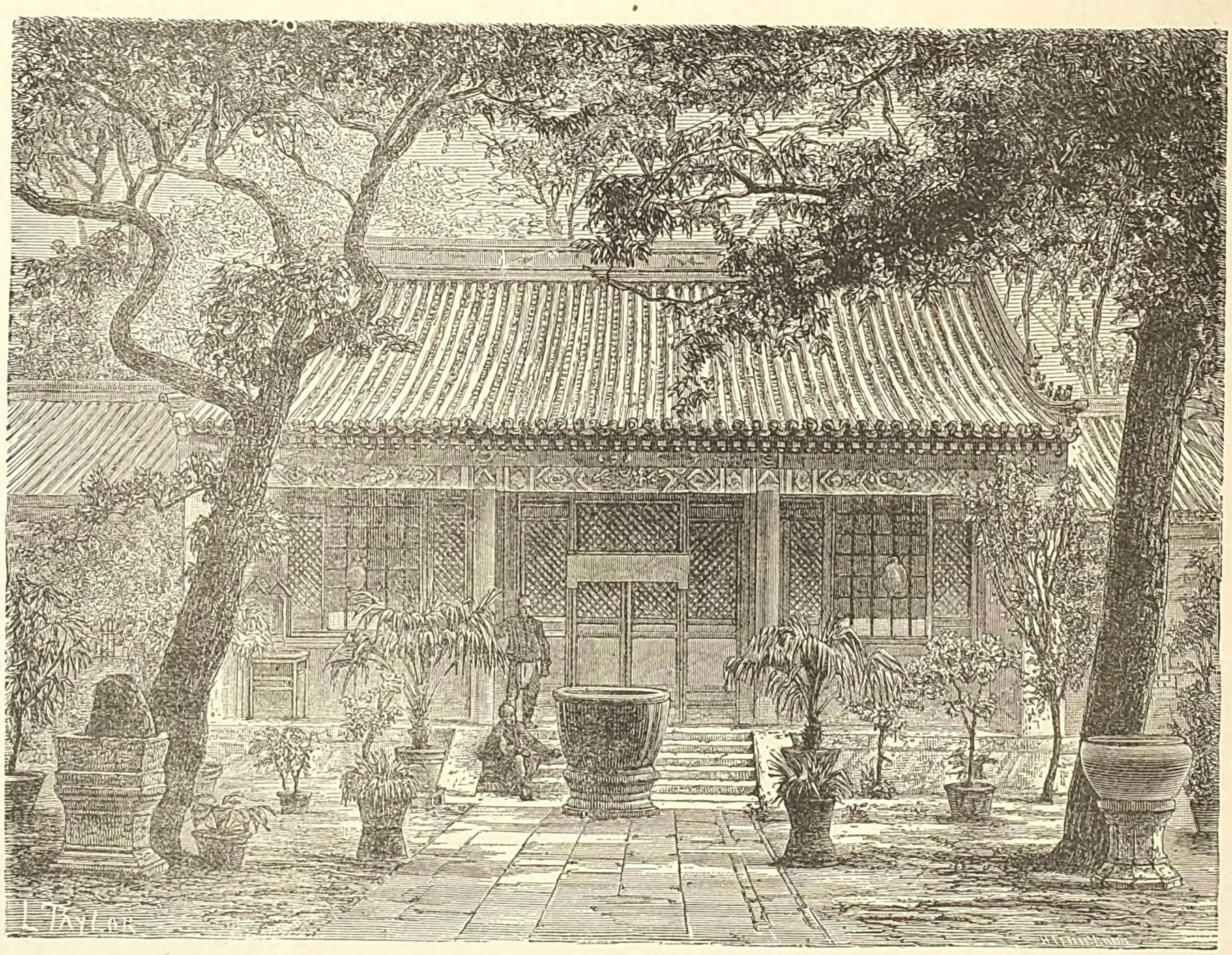
In some places there are only native craft, as represented in the illustration on the opposite page. These vessels range from fifty to two hundred feet in length; the largest of them have three masts and a short bowsprit. They are elevated bow and stern, and have sails of matting, run through with strong bamboo rods, and hoisted by a large rope. The mainsail of a large junk will weigh several tons. Among the vessels may be seen, here and there, great dismasted junks used as



WATER VIEW. SHANGHAI.

restaurants, and thronged all day by a merry crowd. Upon the wharves much small traffic is carried on; idlers loiter, children play at ball or at Chinese shuttlecock, striking the bird with the foot instead of with a battledore; and gamblers with cards or dice stake the very clothes they wear, their houses, their wives and children, the fingers on their hands.

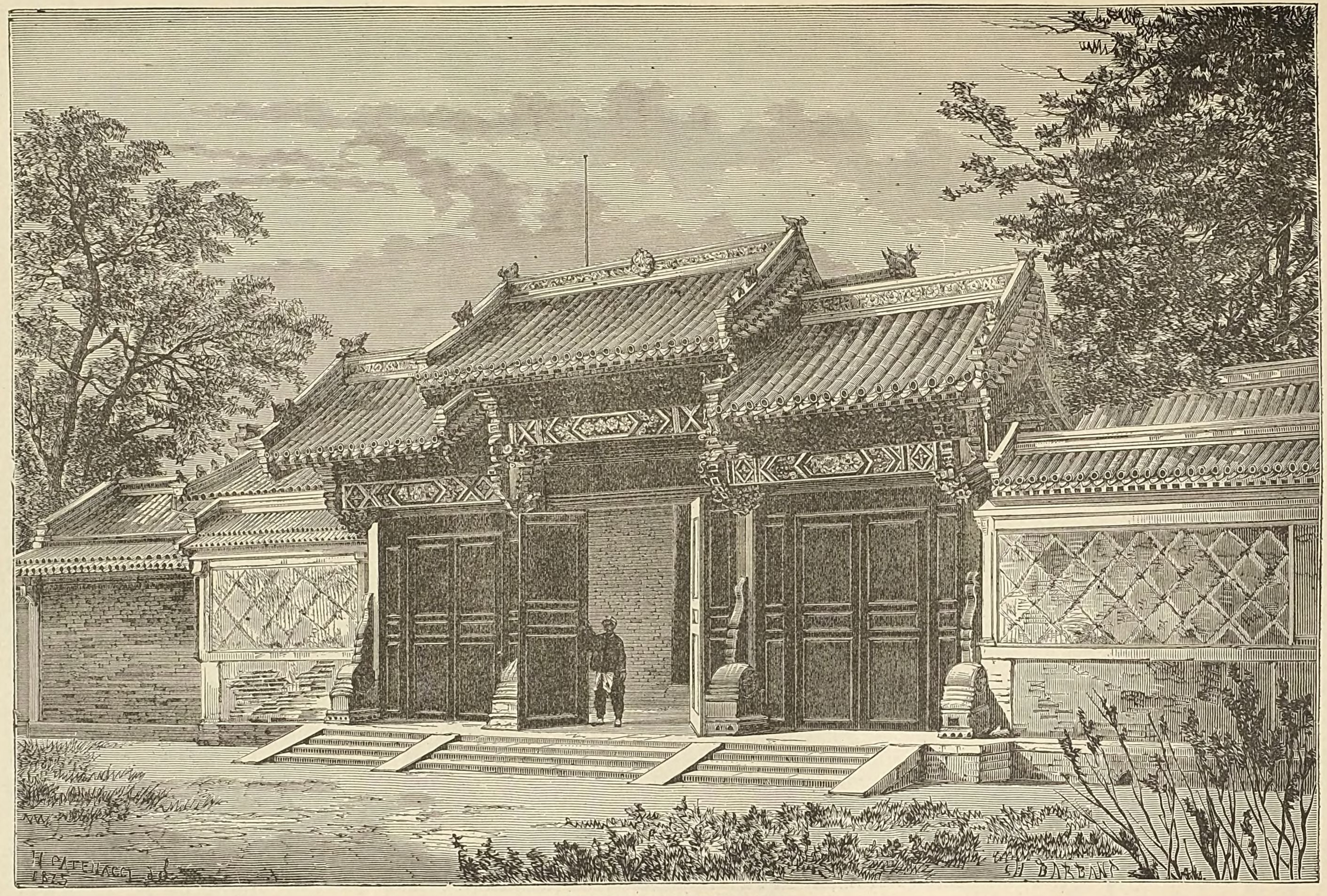
Shanghai, however, is half a foreign town, and it is at Peking that one finds the true Chinese characteristics. This great capital, whose population in 1851 was officially stated at two millions of inhabitants, consists really of two cities: the Mongol, Mantchu, or Tartar, which is the official and military city at the north; the Chinese,



Monastery Chapel.

or trading city, at the south. Each is surrounded by its own walls and moats, and they are connected only by three gates elaborately fortified. Between the two cities lies a broad paved avenue, and following this to the east, the traveller comes out at the angle where the Mongol city is overlapped by the Chinese, and ascending a gentle slope, finds himself upon the top of the ramparts.

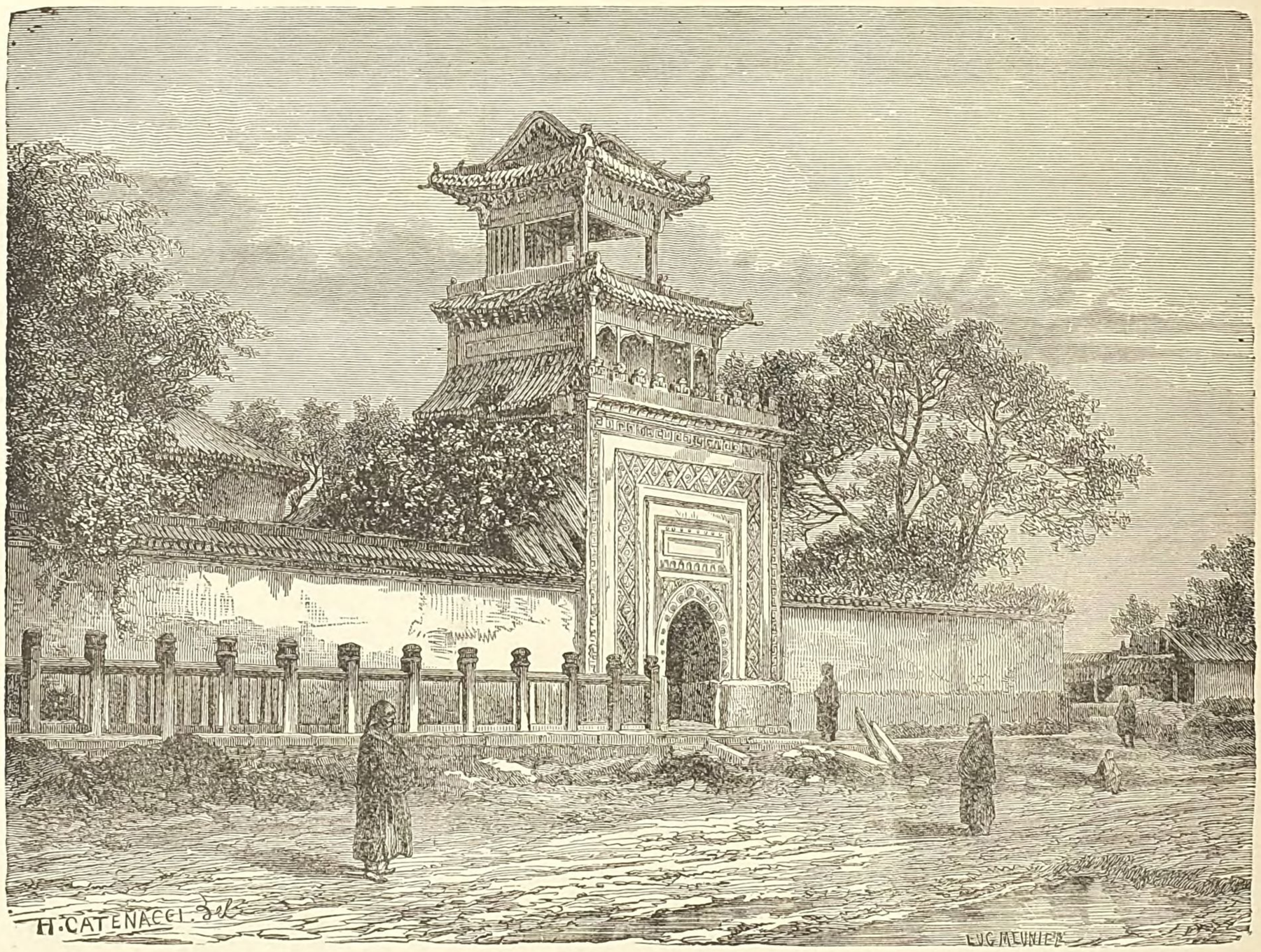
What a strange and magnificent picture it is to the eyes of a European, wonted to high, square houses, regular public buildings, and the gray monotony of color prevailing in all our great cities! Pagodas, temples, kiosques, towers, porticos, curve in spirals, bend over like heavy-headed flowers, round themselves into balls, spring up



FRENCH LEGATION.

in sharp notched peaks, amid the denuded trunks and wide-spreading branches of centenarian trees, and flag-staffs of princely residences lifting aloft in air their long, bright-colored pennants.

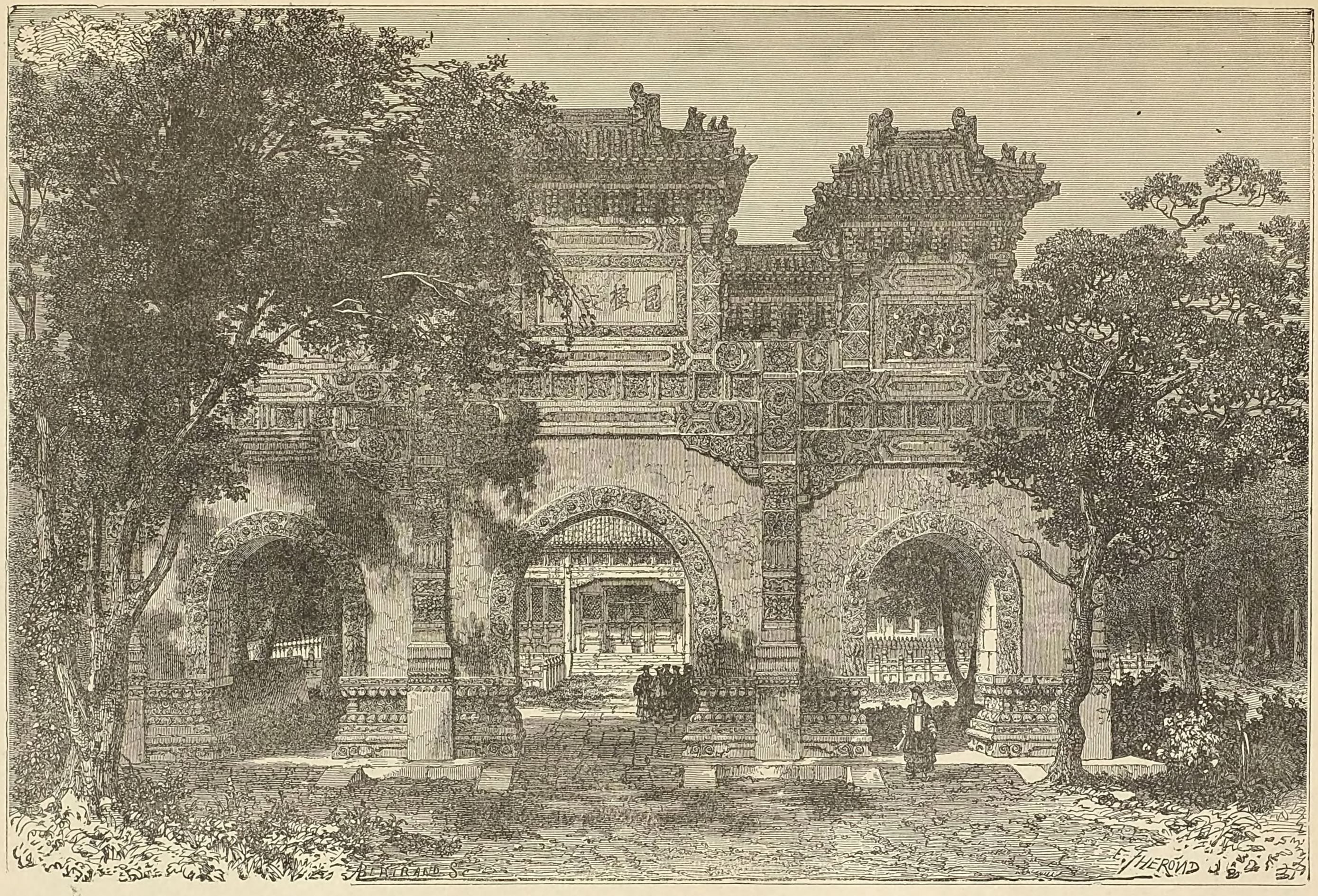
In front, a little at the right, appear the gilded roofs of the Imperial Palace, with its lofty dome of white marble; further on, the five pagodas of the artificial hillock in the Imperial Gardens rise one behind the other ; still further away, to the north, runs the sombre line of walls, loaded with towers, pavilions, and batteries, rising to the height of a hundred and fifty feet above the ground.



Mosque

Turning to the left, the view changes entirely ; here is the Chinese city, an inextricable confusion of narrow lanes and low hovels, with roofs of mud or reddish tiles. Only the wide avenue of the centre is visible, cutting the city in halves, and the compact and busy crowd can be discerned which is gathered all day long in this great artery.

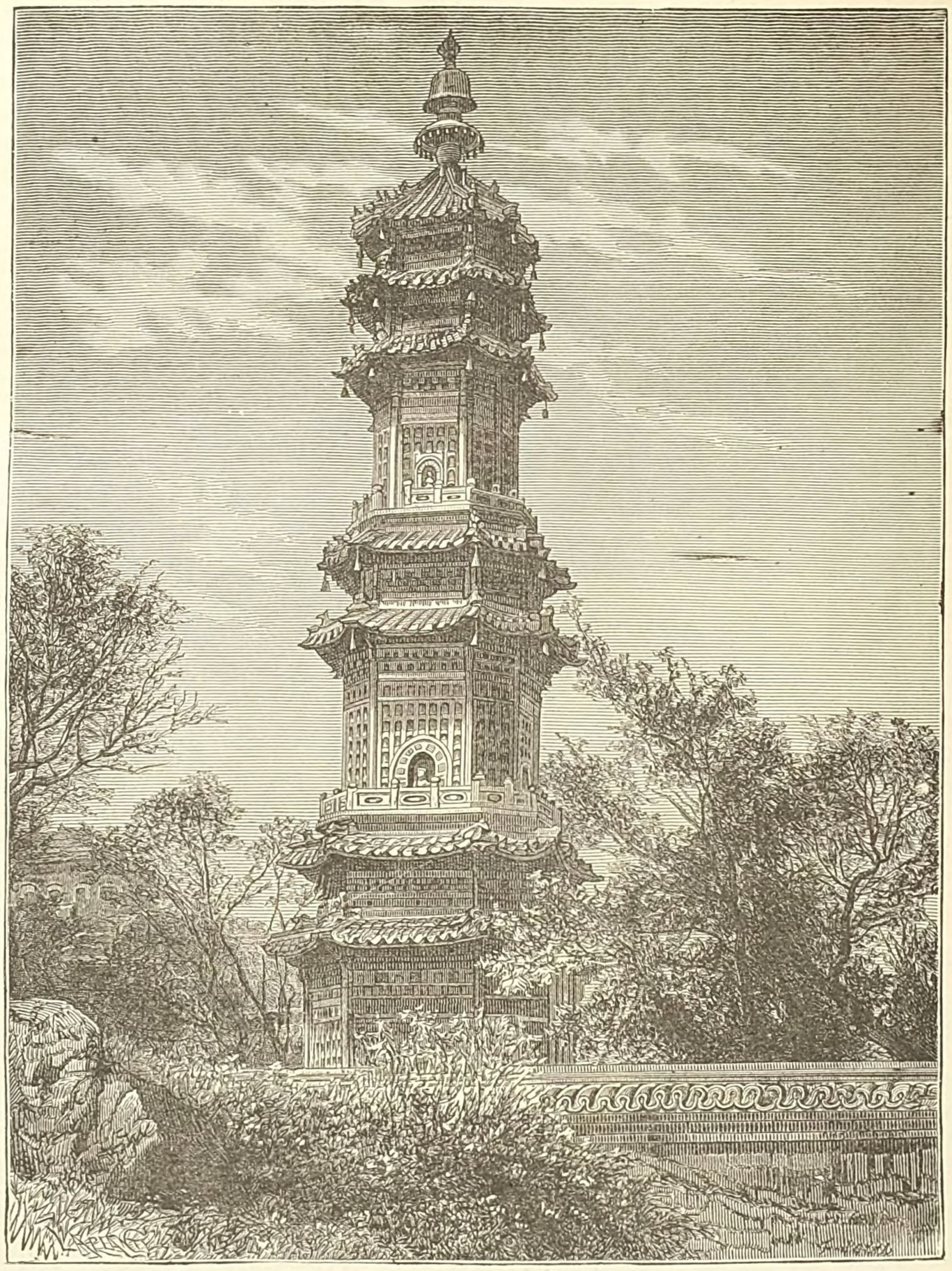
Far away the eye rests on the dark mass of a grove of trees, from which arise the blue domes of two immense circular buildings : they are the temples of Heaven and of Agriculture, with their surrounding parks. Finally, on the west, beyond the wretched suburbs which surround Peking, may be seen a great plain covered with luxuriant crops, where there is not a grove, not even a single tree of size. In the



TEMPLE OF CONFUCIUS

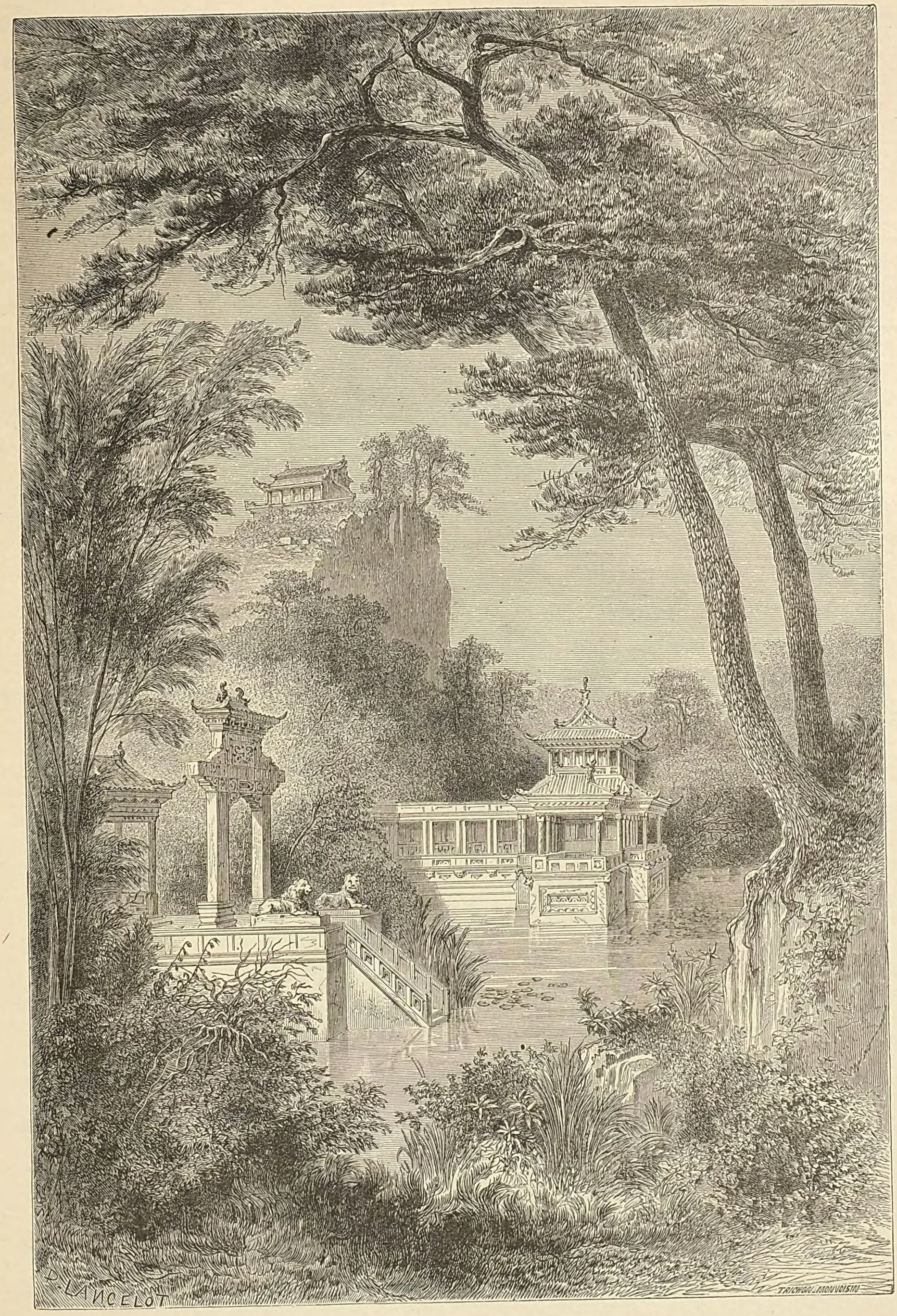
north of China, in singular contrast to our European landscape, all the trees are in the cities, and the country is but one great grain-field, taxed in every square foot to support the enormous population of the Flowery Kingdom.

The interior of the Mongol city is extremely regular. Its outline is a rectangle, and from its nine gates extend in straight line across the city, boulevards paved with



Porcelain Tower.

stone, ninety feet broad, and cut at right angles by numberless streets one-third of this width, and in turn connected with each other by an infinity of narrow lanes. Here are many imperial establishments, temples, and mandarins' houses. In the southern part of the city are the English and French legations (see pages 254 and 257), originally palaces of great dignitaries, which had fallen in some way to the crown; in the west are Buddhist monasteries, a chapel of one of which is represented on page 256; in the extreme north is the great temple of Confucius (see

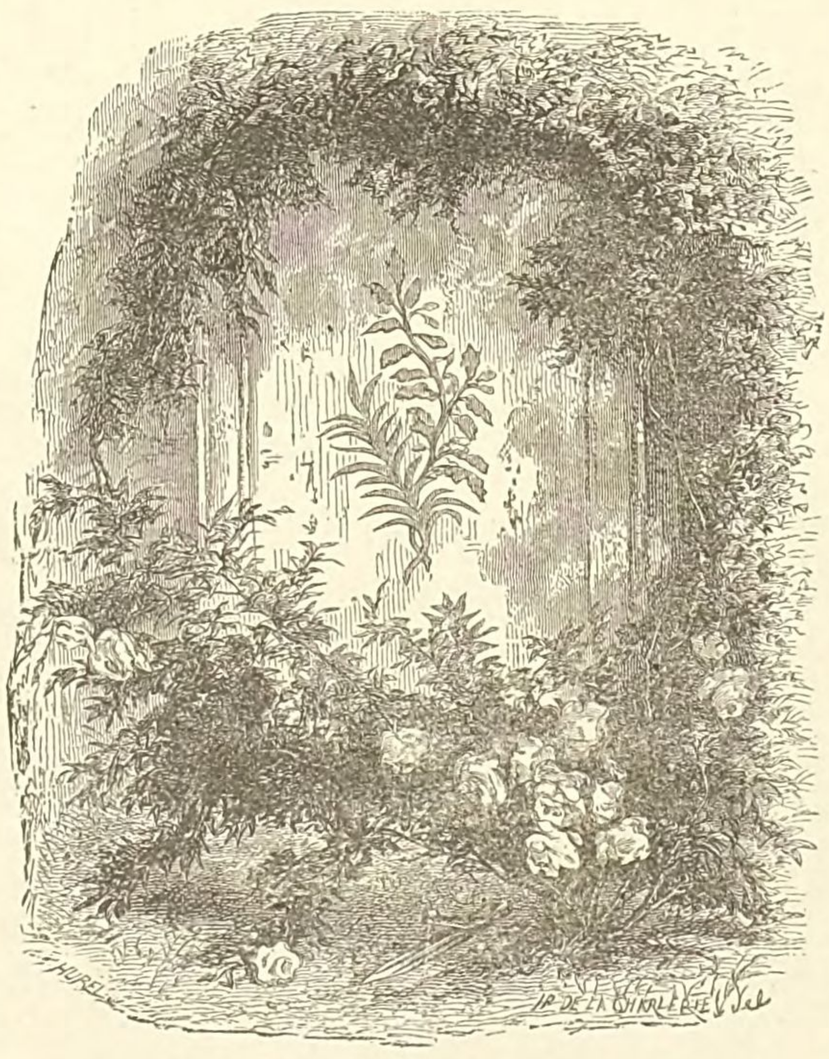


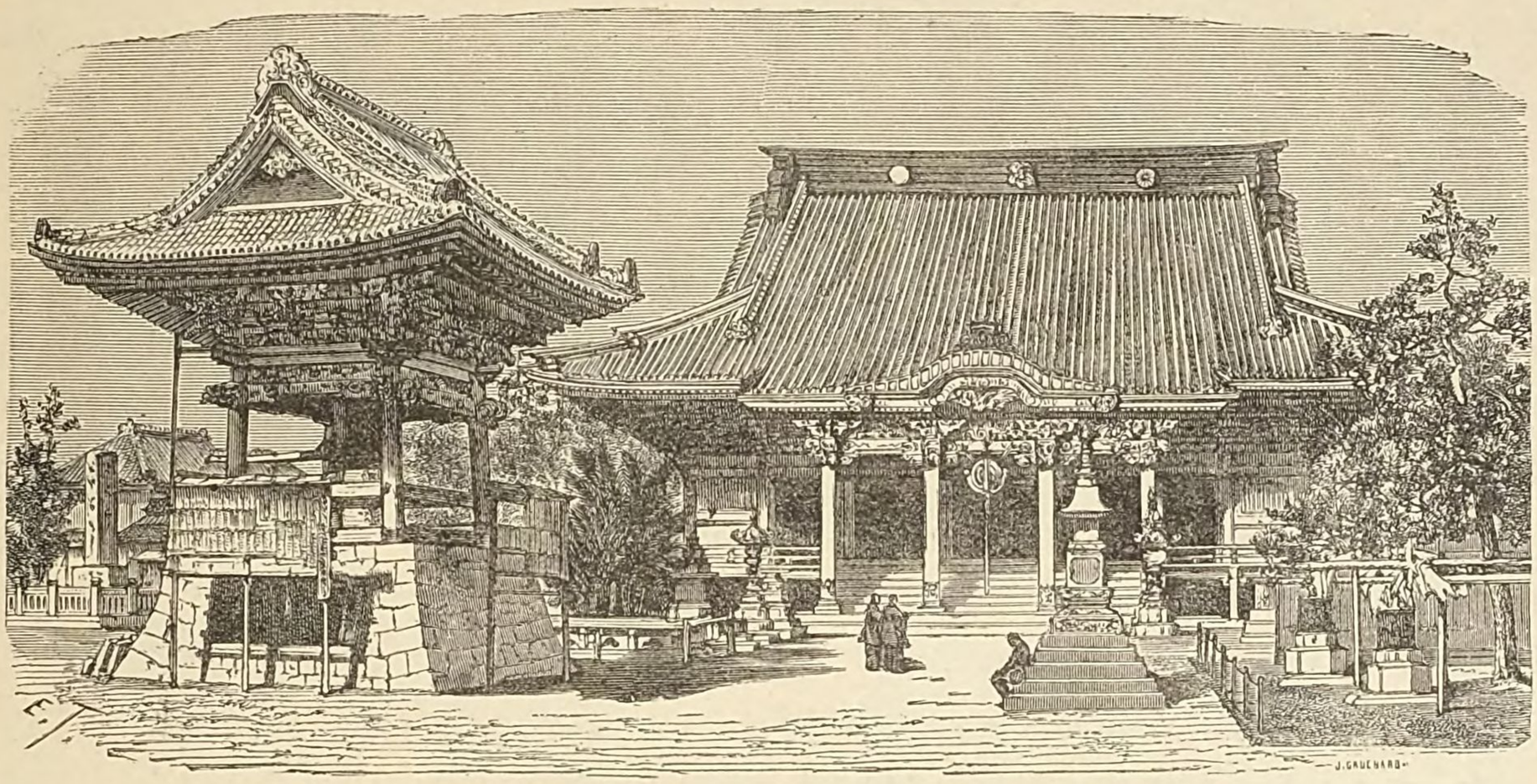
IMPERIAL GARDEN, CHINA.

page 259), a truly magnificent marble structure, above the high altar of which are inscribed these words, "The Chief and Guide of the ten thousand worlds;" and, lastly, near the centre, there is a mosque (see page 258), erected in the eighteenth century by one of the emperors who had made conquest of a Mussulman prince, and desired to afford him opportunity for observing the rites of his own religion.

In the centre of this Mongol half of Peking is a vast walled inclosure, known as the Yellow City. Within its walls are pagodas of peculiar sacredness, and palaces of high dignitaries of the empire. Here also are the Imperial Gardens (page 261), with their great artificial lakes and porcelain tower (page 260), and the hillock, two hundred and fifty feet high, believed to be in substance a mass of coal, accumulated by some provident emperor against an expected siege; lastly, and most important of all, there is a third inclosure, with high walls and a broad moat, and four gates, — the Red City, the sacred abode of Imperial Majesty. The Chinese call it "The Forbidden City." Its gates are "The Great Purity," "The Celestial Tranquillity," and the like. It contains the palaces of Medium, Sovereign, and Protecting Concord. It has a pavilion of Impurpled Splendor, wherein the Orchestra of Universal Peace plays before the Son of Heaven as he sips his tea.

Having attained celestial heights of nomenclature like these, it is perhaps well to go no further, lest we find they represent but a semi-barbaric splendor a good deal fallen into decay, and that the Imperial Palace of China contains but little more peace, tranquillity, and concord than does that of Constantinople.





JAPAN.

NEAR neighbors to China though they are, the Japanese indignantly repudiate the idea of a common origin with the dwellers in the Flowery Kingdom. Their civilization, in some points identical with the Chinese, in many other respects differs widely from it. Their characters used in writing are the same; the worship of Buddha and of Confucius exists equally in both countries; in Japan and in China the same style of pagoda rears its head, wherein officiate the shaven gray-robed bonzes; their junks are alike; rice and fish, tea and rice-brandy, are the staples of consumption in Yeddo as much as in Canton; Japanese coolies make the streets of Nangasaki resound with the same piercing, rhythmic cries as do the coolies of Shanghai; the literature of the archipelago has no national stamp, being borrowed altogether from China; finally, the headdress of the Japanese reminds one of that of the Chinese under the early dynasties, anterior to the wearing of the queue.

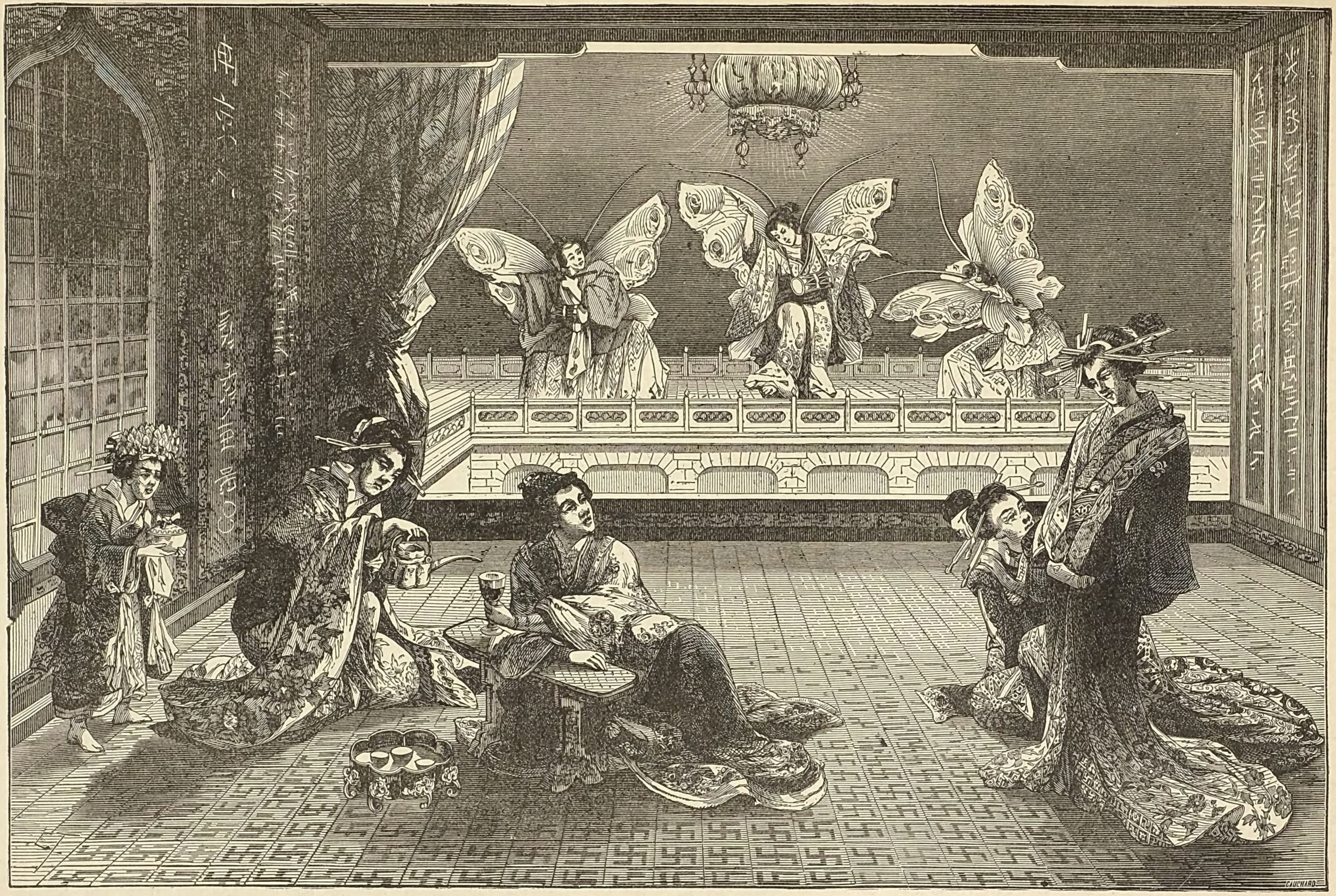
But here the resemblance ends. The Japanese race, haughty and noble, military and feudal, differs essentially from the Chinese race, humble and sly, scorning the art of war, and having a gift for trade and commerce. The Japanese knows the meaning of our word "honor"; to deprive him of his sword is an insult only to be wiped out with blood. The Chinese laughs if you

tell him he is a coward, or if you prove to him that he has lied: these are matters of indifference to him. The Chinese race are filthy in their habits; the Japanese are of the daintiest neatness. The Japanese has a cheerful disposition, he is intelligent, and eager to learn; the Chinese despises all that lies outside of his own country. All this denotes in the dwellers in the island empire a race superior to that which peoples China; and we are led to believe that the Japanese are an offshoot of the great Mongol family, owing their presence here to some early immigration by way of the Corea.

Whatever may be their origin, no Asiatic race is more interesting, and the mystery in which they have been shrouded until within the last twenty years adds perhaps to the eagerness with which the great civilized nations of the west now press through the doors which Commodore Perry's Expedition, and the famous "treaty of friendship and trade," first opened in 1854.

In many respects it is still difficult fully to understand the Japanese character and habits. The home life of the higher classes is yet carefully secluded from foreign inspection, but enough is known to show us an amiable, versatile, light-hearted race, neither truly Asiatic, nor yet completely European; but, like the ancient Greeks, forming a link between the two. Of their curious dual government, and the duplicate system to which it has given rise, — a system carried out into almost every detail of existence, — we have not space here to speak. To understand their language is a matter of extreme difficulty, and no thorough knowledge of a people can exist without an adequate comprehension of its mental ability as displayed in its own literature. It is, however, a curious fact that the Japanese, so reticent in respect to themselves, have from age to age placed upon record their daily lives in the shape of thousands of clever sketches, of more or less finish, but all interesting and instructive from their strongly marked originality, and many of them from the quaint and cynical humor which characterizes their conception. A most fascinating book would be a collection of such sketches, which might be entitled, "The Japanese painted by themselves."

We present two of these sketches on pages 265 and 267. The first represents a scene from one of the numerous theatres in Yeddo, looking upon the stage across a private box. Theatrical representations are announced every night just before sunset by an harangue from a staging outside, in which the merits of the piece are set forth, and the public are notified of the names of the performers. As it grows dark the lanterns are lighted and the invitation is given, "Enter, gentlemen! enter, ladies! The performance is about to begin." The illumination, however, attracts many lingerers outside. Two rows of great paper lanterns cross the front of the building. Between them are globes of transparent paper, each containing a wax candle, and around the doors are enormous oblong lanterns throwing light upon placards which



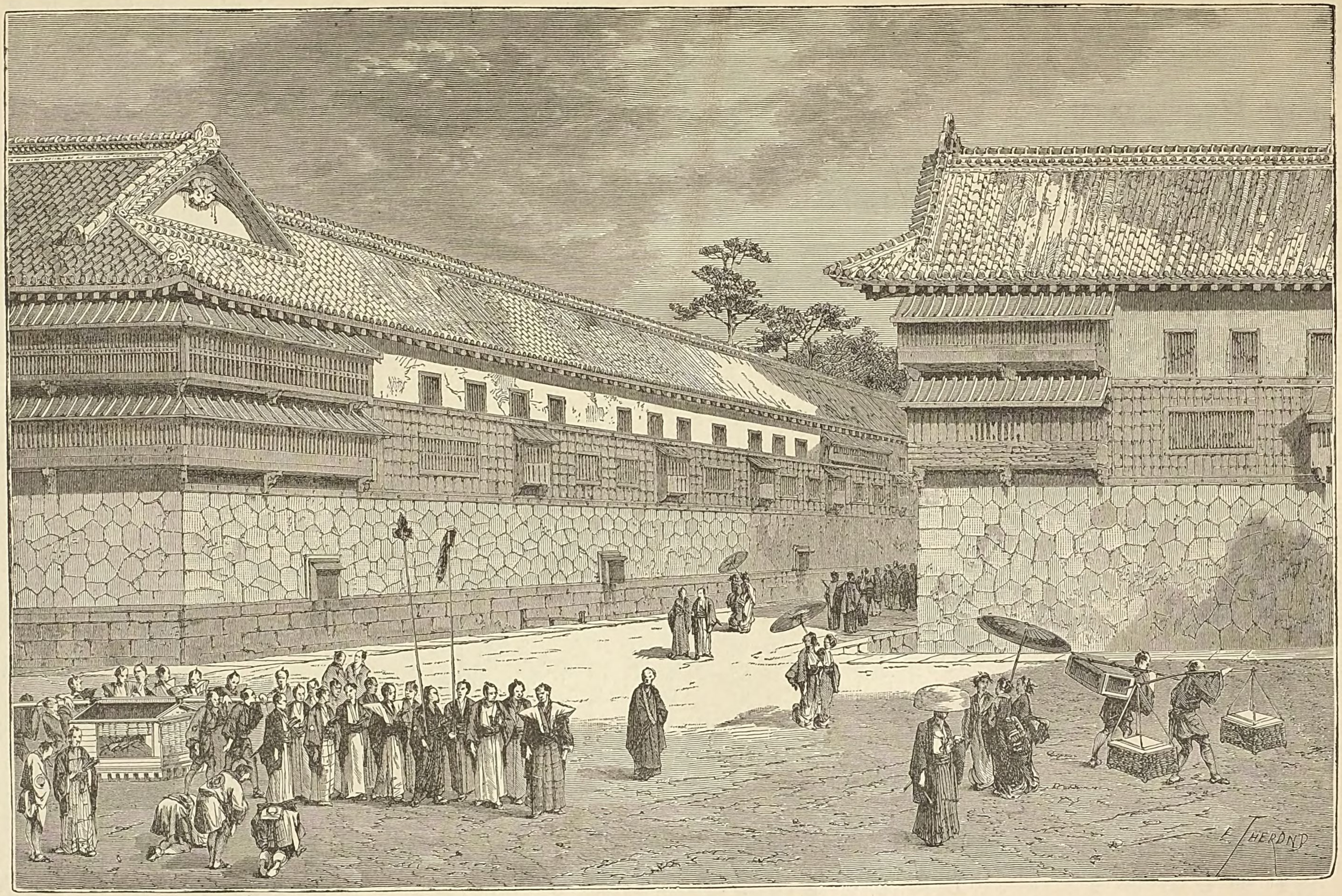
BUTTERFLY BALLET IN A THEATRE IN YEDDO.

set forth the characters and scenes of the play. Some of these placards are the entire height of the building, and there are banners higher than the placards. Each theatre has its own armorial bearings reproduced on the lanterns and flags, and, in gigantic proportions, covering three sides of the building.

Within, the best places are in the second gallery, where spacious boxes are arranged in a row, furnished only with the usual Japanese matting by way of seats; a servant at once brings in tea, cakes, and sweetmeats, also pipes, tobacco, and a little brasier. As long as Japanese actors welcome their audience in this way, they can safely abandon to us the practice of paid applause, nor dread the importation of our ways of expressing disapproval.

The performances are in great variety, and last usually till one o'clock in the morning. The exhibitions of Japanese jugglers in the United States, some years ago, will give an idea of their skill in certain directions, and it is not too much to say that, taking into consideration the national character and ideas, the Japanese have no superior in their theatrical representations of whatever kind.

The illustration on the opposite page brings us to a mention of the Daimios, the great feudal aristocracy of Japan. Each of these nobles is practically independent of the Tycoon when in his own province, where he has the power of life and death over all his subjects and dependants. To keep some order among this turbulent class, an early Tycoon required them to spend half of every year in his capital of Yeddo, and on their return retained their wives and children as hostages. Thus is explained the enormous extent of the official quarters of the city within a double enclosure of glacis, wall, and moat, and whole streets with moated houses displaying a frontage of more than a thousand feet. These buildings differ among themselves only in size, but are all of the same style of architecture and the same simplicity. Many of the streets are a hundred feet wide, and the fronts of the houses — that is, the two-storied range of buildings enclosing the court-yard — sometimes extend nearly a quarter of a mile. These buildings are always separated from the street by a small, narrow, and muddy moat, little more than a gutter. They are in form an oblong square, with low, wide, grated windows and doors at regular intervals. They are occupied by servants and armed retainers. Within are the seignorial residences, and beautiful gardens, while towering shade-trees rise above the roofs and give an air of regal grandeur to the scene. No business is ever seen in this quarter. Armed retainers pace the streets, often with bows and arrows, and with the armorial bearings of their masters embroidered in the back and sleeves of their tunics. At times some Daimio is seen abroad, accompanied by his train, as in the illustration. He rides in a *norimon*, or Japanese palanquin, — a suspended cage, much like a large baby-house, says Sir Rutherford Alcock, with roof, and side-doors, and cushions, and shelves, and windows. It is suspended from the shoulders of four men, two



STREET SCENE IN THE QUARTER OF THE DAIMIOS.

before and two behind, the bottom of the norimon being about a foot from the ground. The bearers step out at an even steady pace of about three miles an hour. This is the mode of locomotion *de rigueur* for the great Daimio; he is sometimes followed by two or three led horses, but it must be a very poor noble indeed who demeans himself so far as to be seen on horseback. An armed guard surrounds him, and before him a porter carries a couple of trunks containing a change of clothing, in case he may wish to make some alteration in his toilette during the few hours he will be absent from home.

At the opposite end of the city lie the trading quarters. Here shops of every description, notably those for the sale of porcelain and bronze, as on page 269, abound.

Of Japanese art pages might be written merely in opening the subject. As has been well observed by M. du Chesne de Bellecour, in an article in the *Revue des Deux Mondes*, Japanese taste favors the rare and elegant, rather than the sumptuous. Nowhere, unless perhaps on the diadems of the Mikado and the Kisaki, is there lavish display of gold and precious stones. The grandees of the empire take pride in the antiquity of their possessions. Nothing is so precious in their eyes as an assorted service of old cracked porcelain, or vases of antique bronze, heavy, massive, black, and polished as marble, or furniture and utensils of that old gold-powdered lacquer known as *salvocat*. The great bronze vases of modern Japanese work are perhaps the most perfect of all their artistic achievements. They are often five feet high; some are of a beautiful yellow almost as brilliant as gold; upon these is a great display of ornaments in relief, mostly mythological subjects: others, more severe in style, exhibit upon a plain, smooth, black surface light designs of flowers, birds, and arabesques, in silver thread beaten into the bronze with a hammer. The only rivals in elegance to these beautiful black bronze vases with their niello-work of silver, are their porcelain vases, light-gray or sea-green in color, ornamented with fine painting of which the delicate touch and harmonious tints have an indescribable charm.

A few words must be said of the Japanese religion, which is represented in its two great phases, — the worship of ancestors, by the illustration of the Temple of Hatchiman, on page 270; and the Buddhist worship, by the Temple at Kawasaki, represented in the head-piece to Japan, and in part, on a larger scale, on page 271. The former is evidently the earlier faith of the country, and seems to have been originally a commemoration of certain great men and early heroes, to whom the country was much indebted, but of scarcely any religious import. Later it grew to be a form of worship, and has curiously blended with the Buddhism borrowed from China and India. Buddhism is a flexible, conciliating, insinuating system, and knew how to accommodate itself to the Japanese mind. On their first entrance into Japan, the bonzes succeeded in obtaining the guardianship of the shrines and little chapels of the earlier faith, and built around them sanctuaries of their own. They readily

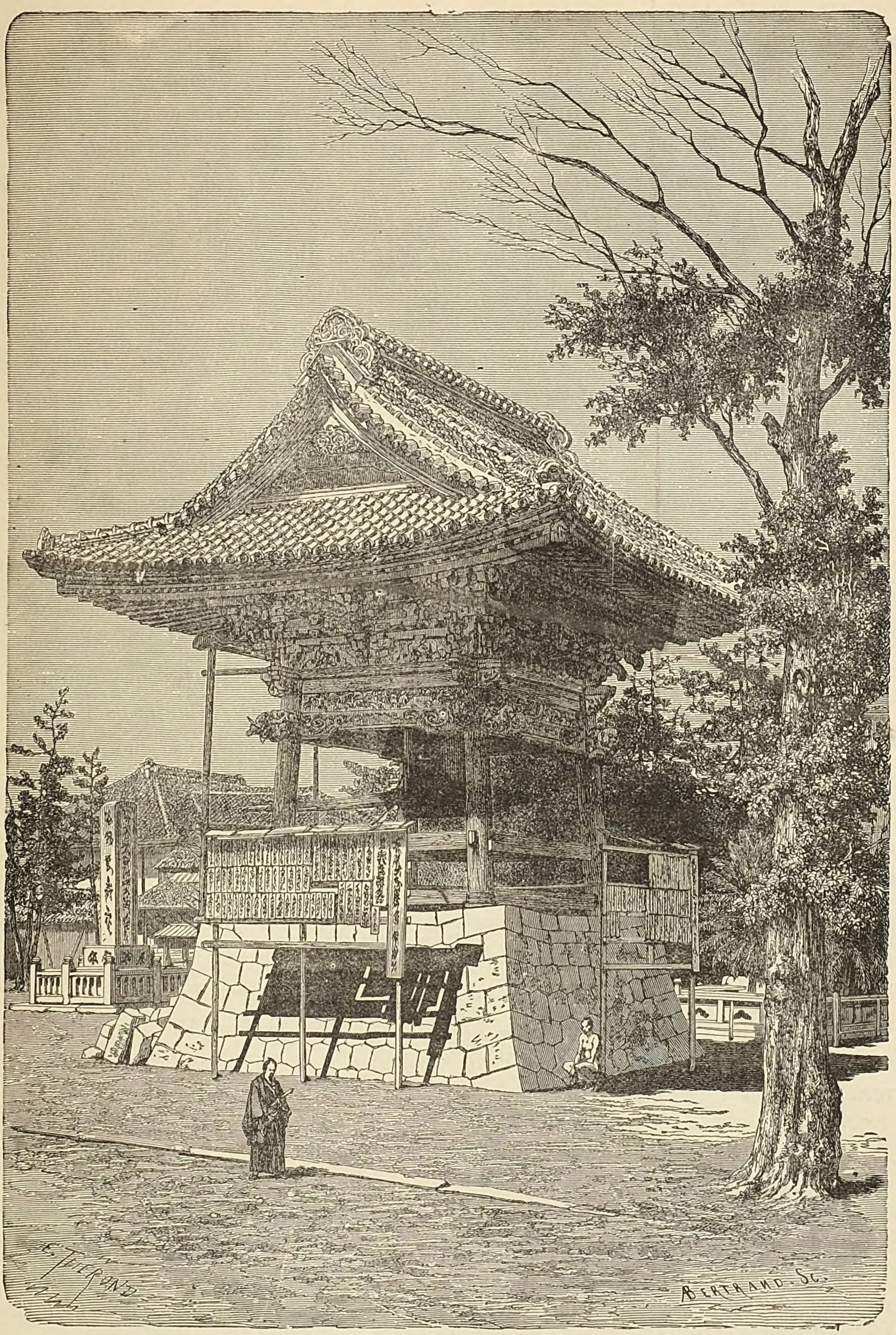
JAPANESE BAZAAR.

added to their own ceremonies symbols borrowed from the national religion; finally, the better to mingle the two forms of worship, they introduced into their temples Japanese idols, invested with titles and attributes of Hindoo divinities, and Hindoo divinities transformed into Japanese. There was nothing inadmissible in these changes,

Temple of Hatchiman.

naturally explicable by the doctrine of transmigration, and, thanks to this combination, to which has been given the name of Rioboo Sintoo, Buddhism is now the dominant religion of Japan.

Our last illustration (page 273) represents the entrance to the residence of the

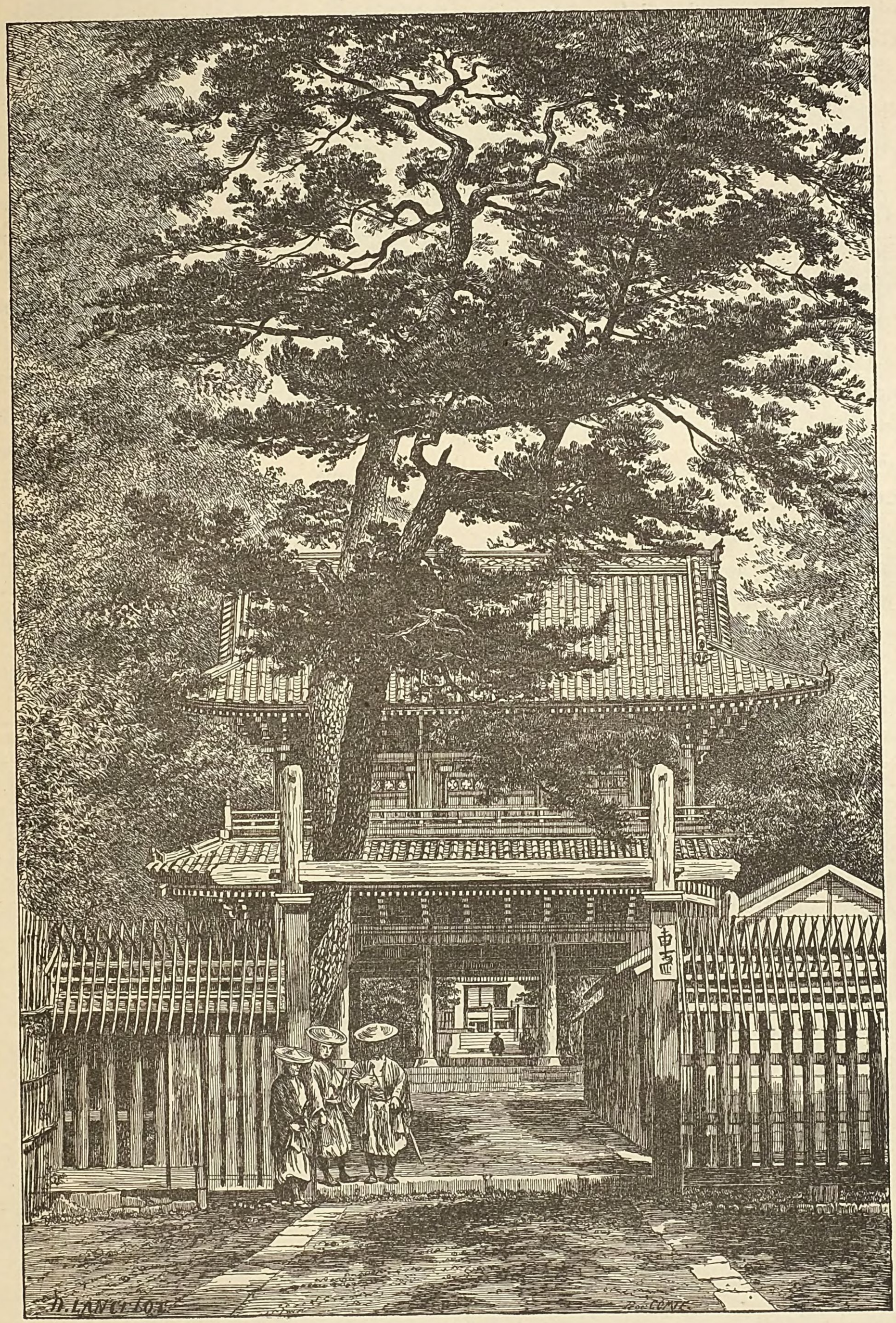


BELFRY OF BUDDHIST TEMPLE.

English legation in Japan. Of what is to be seen within this portal Sir Rutherford Alcock's own description will be most appropriate. This gentleman arrived in Yeddo in 1859, as her Majesty's envoy-extraordinary, and at once requested a residence to be assigned him. A choice was offered of two or three buildings which had served as temples, and of these the selection was made of the Tozengee, one of the largest and best-endowed in Yeddo. "During our walk," says the envoy, "I had been assured there was no finer site or grounds in the city, and that it had been specially destined for the British representative. On turning off the Tocado (as the great high-road through the island is called, and which skirts the bay here), we passed through a gate giving entrance to a long avenue of cryptomeras and pines; then through a second more imposing gateway of two stories across an open square with lotus ponds and trees on each side; and finally, by an entrance to the right, through another court-yard, and gained a fine suite of apartments looking on to as beautiful a specimen of Japanese garden and grounds as can well be conceived. A lawn was immediately in front; beyond, a little lake, across which was a rustic bridge; and beyond this again, palm-trees and azalias, large bushes trimly cropped into the semblance of round hillocks; while the background was filled up with a noble screen of timber composed of the finest of all Japanese trees, — the evergreen, oak, and the maple. Palms and bamboos were interspersed, and a drooping plum-tree was trained over one end of the rustic bridge giving passage across the lake. To the right, a steep bank shut in the view, covered equally with a great variety of flowering shrubs and the ground-bamboo, and crowned with more of the same timber. Through this a path led upward by a zigzag flight of steps to a fine avenue of trees, the end of which widened into a platform, whence a wide view of the bay and part of the city below could be obtained with a perfectly scenic effect. The distant view was set in a framework of foliage, formed by the branches and trunks of pine-trees, towering from fifty to a hundred feet high into the blue sky above. From the end of the avenue, through which a mid-day sun could only pour a chequered arabesque of light and shade, the bay stretched far away a thousand feet below, basking in the full glare of sunshine, and making the deep, cool shade of the terrace, with its thick screen of green leaves, all the more enjoyable by contrast."

Not a corner, however, of this delightful habitation but was destined later to have its sinister memories. The foot of the flagstaff was reddened with the Japanese linguist's blood, on the 29th of January, 1860; the main entrance, the court, the temple, the second story of the legation, became, in the night attack of July, 1861, the scene of a frightful struggle, which left five dead upon the floor and eighteen wounded; finally, upon the veranda on the garden side, fell, a year later, two English marines, after having fatally wounded one of their assassins.

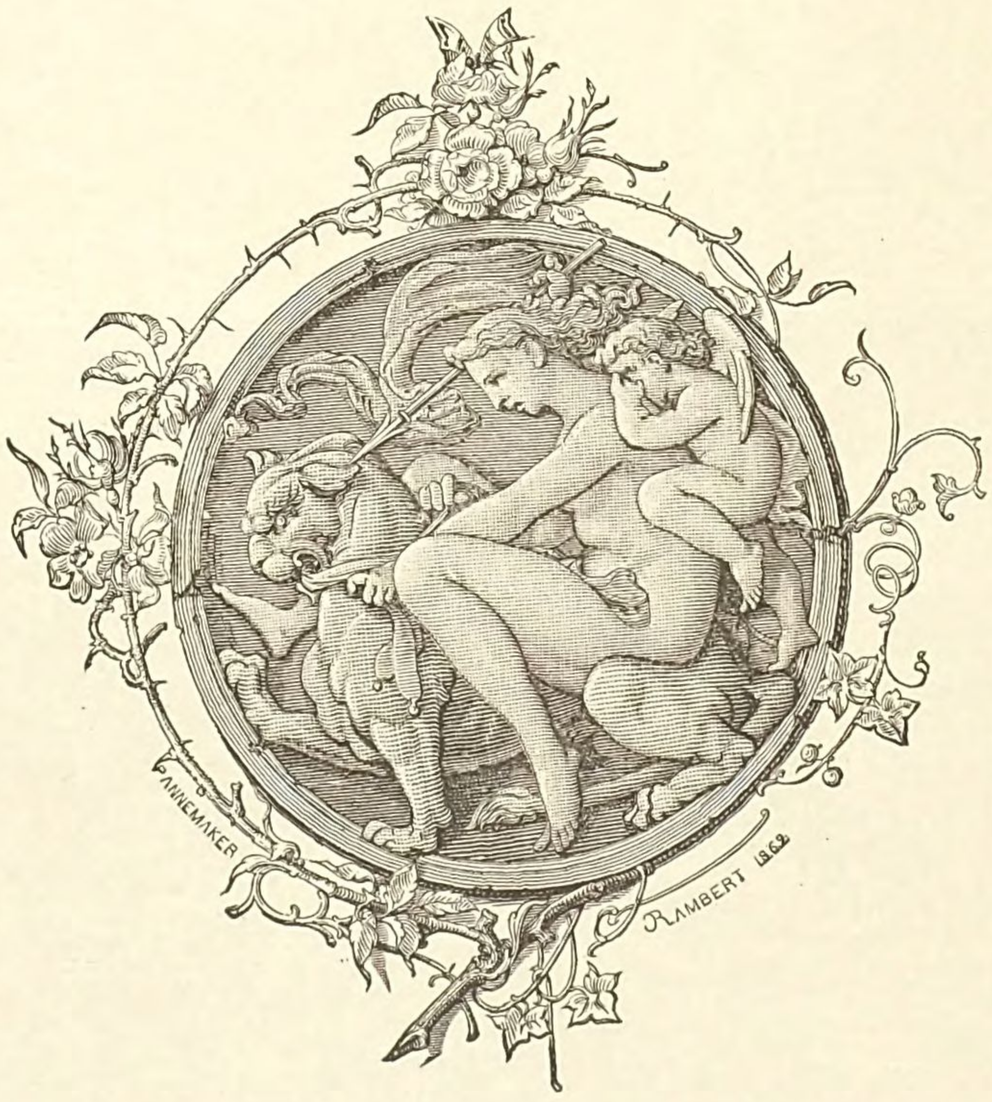
In consequence of these events, all the foreign representatives in Japan demanded

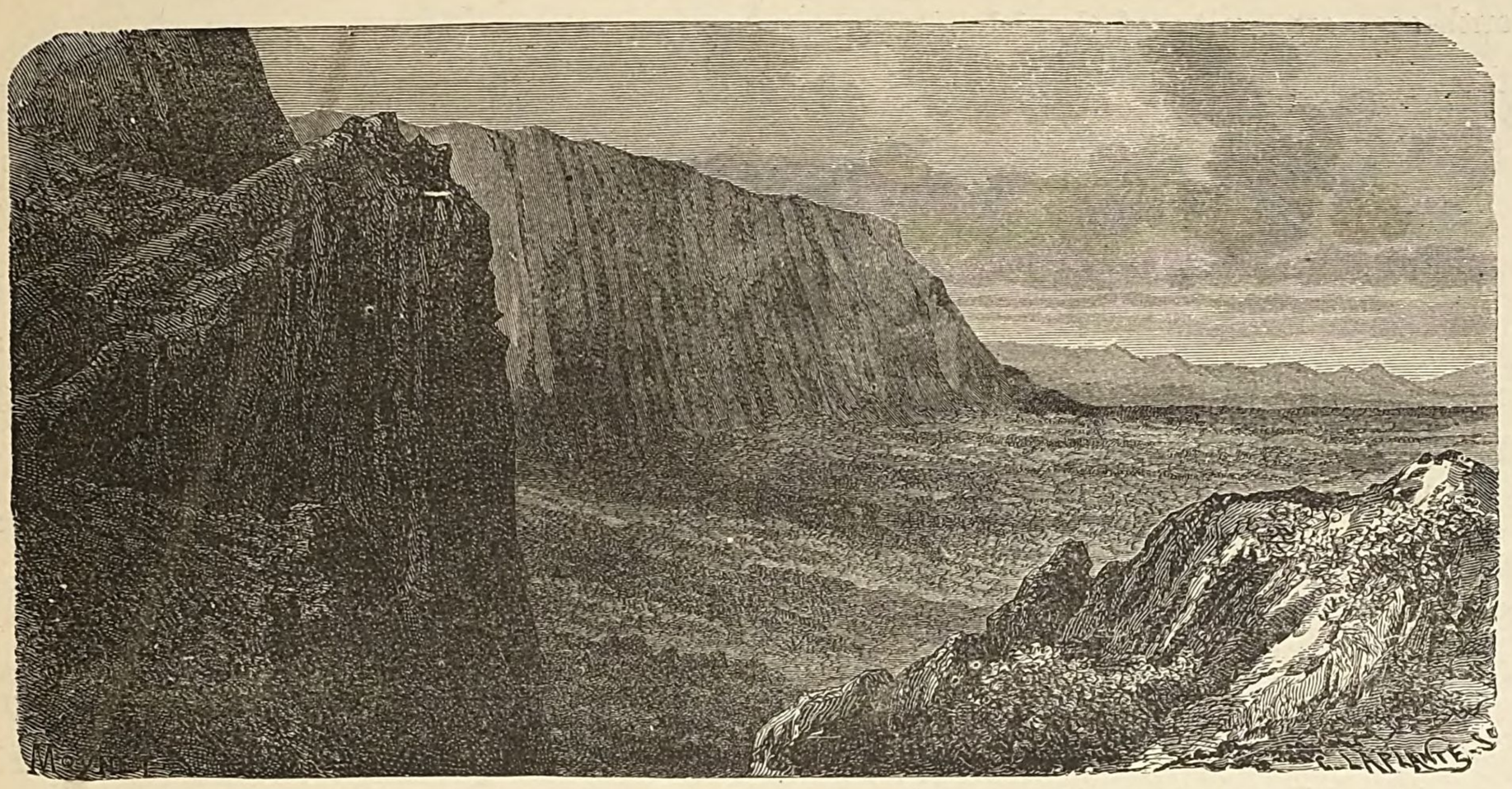


ENGLISH LEGATION.

and obtained from the Tycoon the concession of a quarter in which they could unite all the legations, put themselves in a state of defence, and insure a communication with the ships of war of their respective countries. A public garden of great size, called Goten Yama, was assigned for this purpose. Acres of peach-trees in flower were cut down, and great clumps of cedars fell under the axe. The pleasure resort of the populace was destroyed, and all was prepared for the new buildings. But no sooner had the British legation been completed, with its imposing façade, its elegant galleries, and picturesque roofs, than the hand of an incendiary laid it in ashes. Warned by this event, the other legations were abandoned, and the representatives of European powers in Japan withdrew their residence to Yokohama.

In common prose, the Japanese call their country Nipon; in poetry, it is "The Empire of the Rising Sun." The archipelago consists of four large islands, and a crowd of lesser ones. The whole region is the theatre of frequent and violent earthquakes; hence, all the houses are wooden, and but one story in height. At Yeddo, however, there are city walls and gates of Cyclopean construction, consisting of enormous blocks of rough stone, fitted into one another. Many volcanoes are still in ebullition, but Fusi-yama, the highest mountain in Japan, more than eleven thousand feet in height, is now extinct.





THE SANDWICH ISLANDS.

FARING eastward across the great Pacific, the traveller, if he is wise, will postpone for a few weeks his arrival at the Golden Gate, and very gladly allow himself time to linger in that beautiful half-way house between Japan and California, officially known to all the world as the Hawaiian Islands, — popularly still bearing, and likely ever to bear, the name of Lord Sandwich.

Twenty miles away, when the air is clear, Oahu is discernible, a group of gray, barren peaks rising out of the lonely sea. Approaching nearer, the island reveals its tropical beauty; the lofty peaks, gray and red, are cleft by deep chasms and ravines, filled with cool shadow and luxuriant vegetation; the coast is fringed by the feathery cocoanut-tree, and marked by a waving line of surf; and Honolulu shows its picturesque dwellings, nestling on the soft green turf, under their palms and bananas, their umbrella-trees and bread-fruits, their oranges, mangoes, hibiscus, and passion-flowers. Passing through a narrow winding passage of deep-blue water, the surf running white over the coral reefs on both sides, we moor in the harbor, amid American and English vessels, and countless canoes filled with natives.

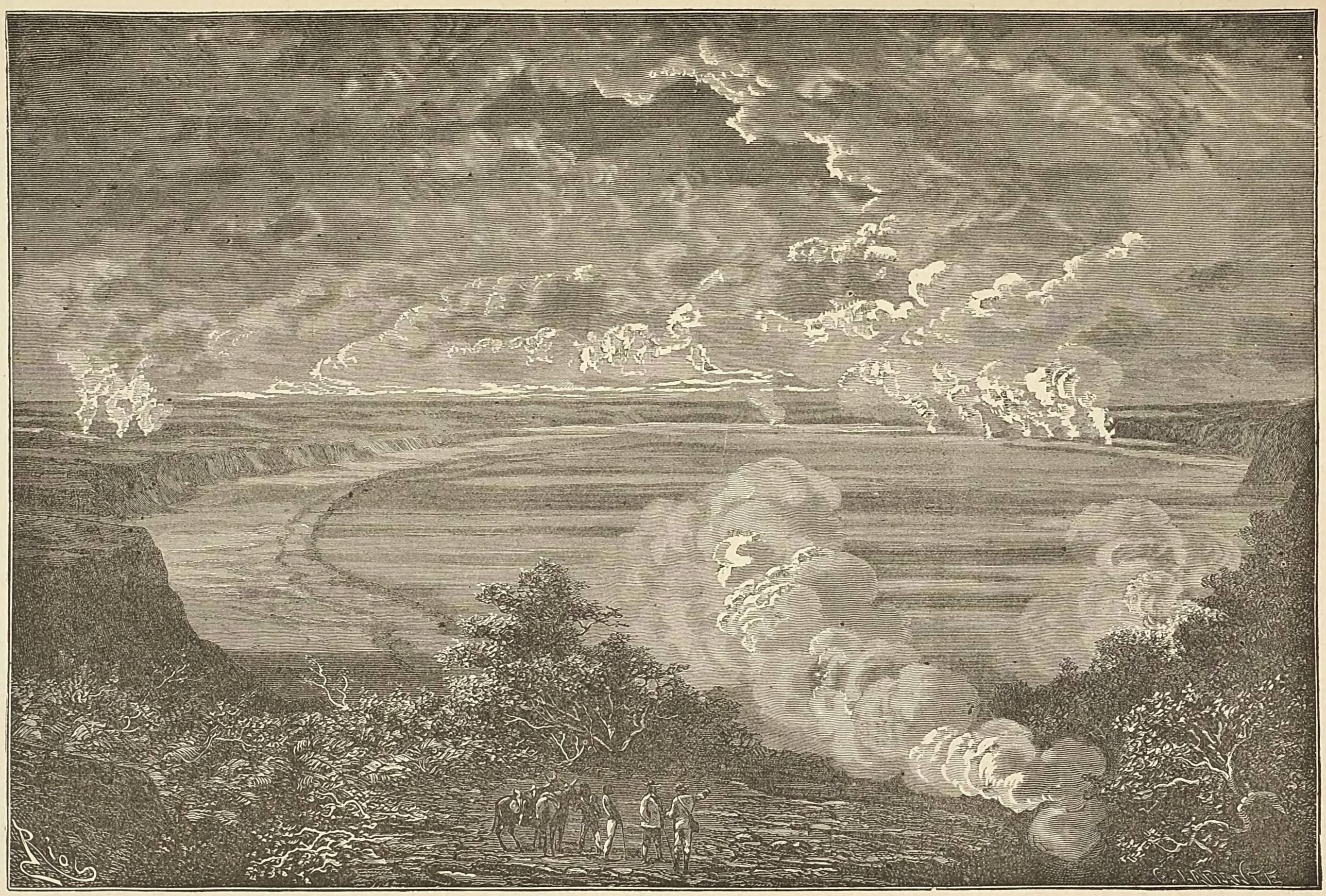
Oahu is divided by a lofty volcanic ridge, stretching from the north-west to the

south-east extremity of the island, and separating the two sections completely from each other, except at a single point, the Pali, or precipice, of Nuuanu (page 275). This Pali is at the height of a thousand feet above the sea, and above it tower the hills, wall-like ridges of gray rock, rising precipitously out of the trees and grass, and broken up into pinnacles and needles. From the edge of the precipice we look down upon a vast plain, with clusters of palms and white houses; beyond is the coral reef, and the wavy line of surf, while away to the horizon stretches the broad blue sea, ruffled by a fresh breeze.

The islands are twelve in number, but only eight are inhabited, and of these Oahu and Hawaii are the most important. The latter is the largest of the group, being eighty-eight miles long and seventy-three broad. The whole formation is volcanic; but in Hawaii the igneous structure is most marked, reaching its climax in two great volcanoes, nearly fourteen thousand feet in height, — the one extinct, Mouna Kea, the other, Mouna Loa, in a state of incessant activity.

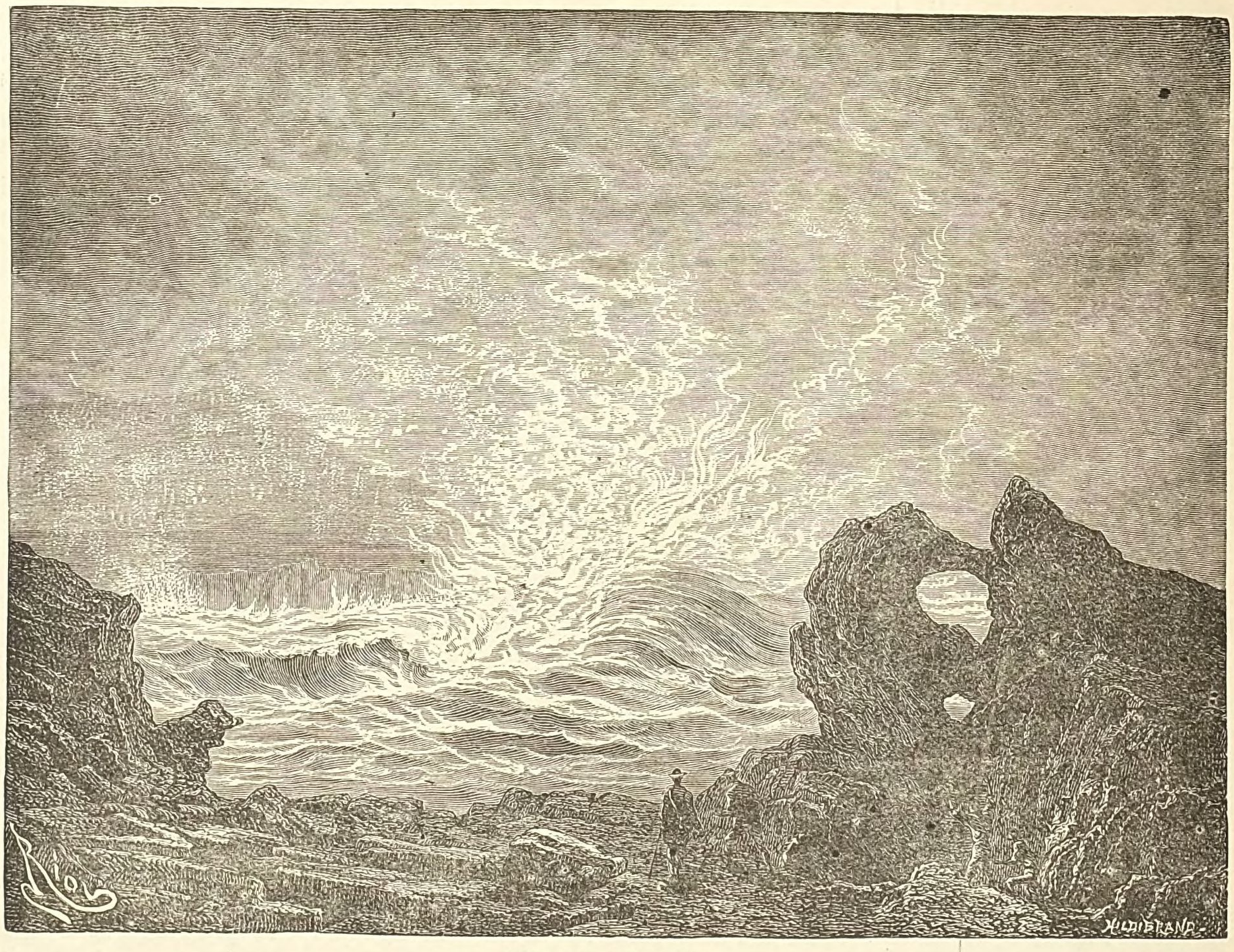
Very few persons have made the ascent of Mouna Loa, but to those who have reached its summit is revealed a vision of wonder and grandeur which has no parallel in the world. This magnificent snow-covered dome, whose base is sixty miles in diameter, is crowned by a ghastly volcanic table-land, creviced, riven, and ashy, twenty-four miles in circumference. Across this the traveller makes his way over strange masses of lava, across chasms and around ledges, to the edge of the summit crater, a region of inaccessible blackness and horror, six miles in circumference, and more than eight hundred feet in depth. At times this crater is inactive for weeks, and then breaks out with fire and lava-streams, and clouds of black smoke, trailing out thirty miles over the sea.

At a height of four thousand feet upon the side of the great mountain is the crater of Kilauea, a comparatively easy ascent of thirty miles from Hilo. This crater has the effect of a great pit in a rolling plain, and the traveller approaching finds himself unawares upon its very brink, just as he is beginning to doubt if he shall ever reach it. Kilauea is nine miles in circumference, and its lowest area covers six square miles. The depth of the crater varies from eight hundred to eleven hundred feet in different years, according as the molten sea below is at ebb or flood. Signs of volcanic activity exist all through it and for some distance around its margin, in the form of steam-cracks, jets of sulphurous vapor, blowing cones, and deposits of sulphur, and the pit is constantly rent and shaken by earthquakes. But in a lake in the southern part of the crater (see page 277), the most marvellous phenomena are constantly visible. To reach this lake three miles within the actual crater, the traveller must descend the terminal wall, which is very precipitous, and then a second slope, thickly covered with flowering plants and ferns of great beauty, and then a third of rough blocks and ridges of broken lava, and so arrive at the lowest level



CRATER OF KILAUEA.

of the crater, presenting from above the appearance of a sea at rest, but found to be an expanse of waves and convolutions of ashy-colored lava, with huge cracks filled up with black iridescent rolls that were molten stone but a few weeks earlier. Parts are very rough and ridgy, but most of the area presents the appearance of monstrous coiled hawsers, the ropy formation of the lava rendering the illusion almost perfect. All this is riven by cracks emitting hot sulphurous vapor. Beyond, comes a ridge of lava, like the rim of a bowl, four hundred feet high, most difficult of ascent; and then the fiery lake lies revealed. It is perhaps five hundred feet wide



Waves of Fire.

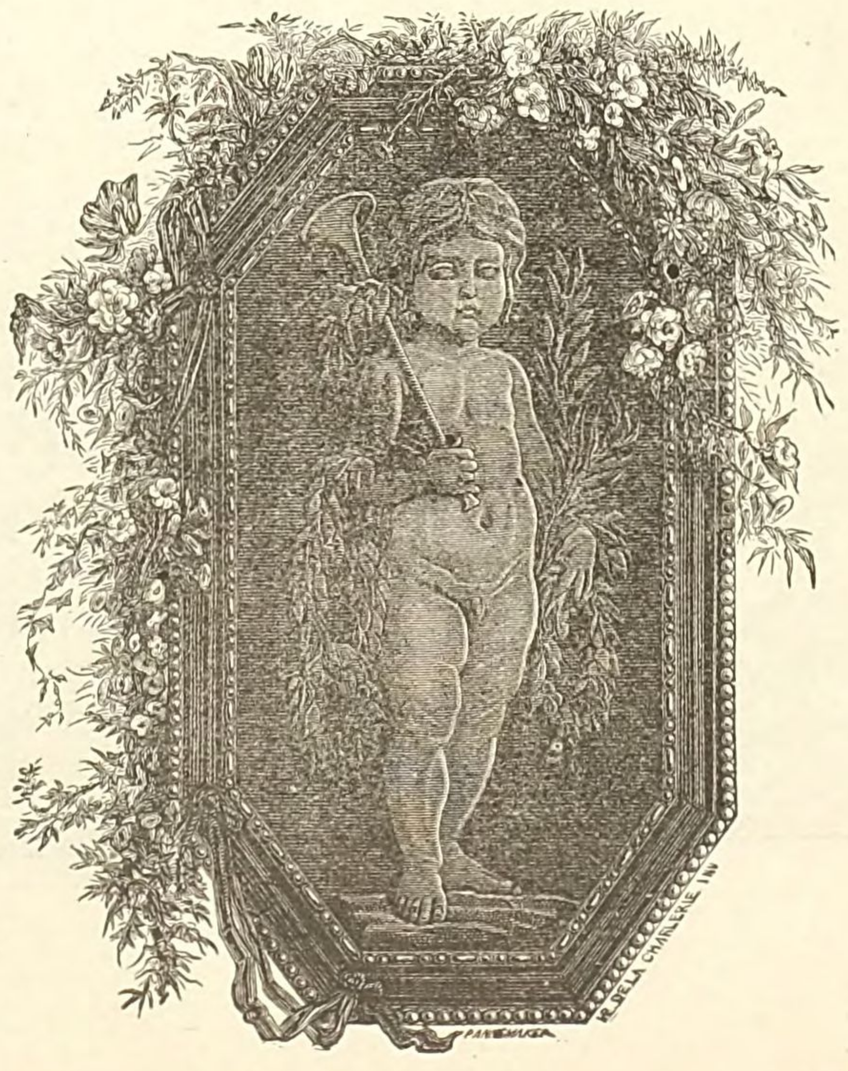
at its narrowest part, and half a mile at its broadest, with craggy sides of lava. To describe it seems impossible; the prominent object is fire in motion, but its surface continually skims over with a cool crust of a lustrous grayish-white, like frosted silver broken by jagged cracks of bright rose-color. The movement is from the sides towards the centre, but the central movement seems distinct, and always directs itself towards the south. All around the edge of the lake play fountains of fire, leaping, dancing, whirling together, merging into one glowing mass, which upheaves itself pyramidally, then disappears with a tremendous plunge, to form anew and again disappear.

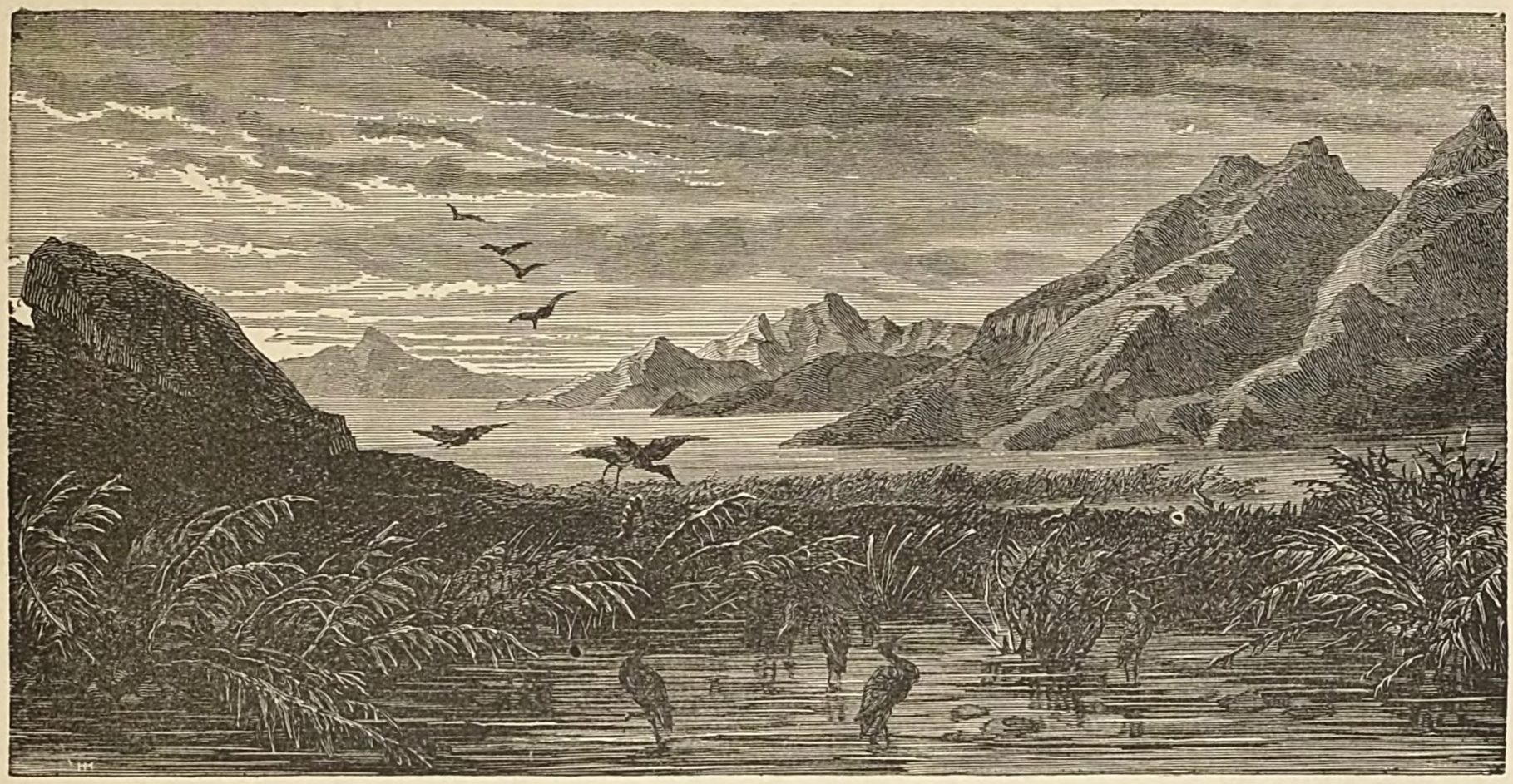
LAVA STREAM.

At times two huge waves (page 278), rising from opposite sides, move slowly towards each other, gaining in height as they advance. Rearing their crests twenty feet above the level of the lake, they meet. The sound and shock is indescribable. They form a whirling pyramid of fire sixty feet high, scattering fiery spray in every direction, then sink and disappear, and the grayish-white scum forms again over the lake.

One most momentous effect of volcanic action in the Hawaiian Islands is the flow of lava, devastating the beautiful and fertile regions around the mountains. Some of these streams have been of extraordinary extent and volume, sweeping away farms and herds of cattle, and even villages in their course (page 279). In April, 1868, the most tremendous outflow of lava known in Hawaiian history took place. There had been earthquakes and threatenings from the volcano, and all minds were anxious as to the event, when, without a moment's warning, the ground south of Hilo burst open with a crash and roar. A molten river emerged through a fissure two miles long, with tremendous force and volume. Four huge fountains of fire boiled up, throwing lava and rocks of many tons' weight to a height of from five hundred to a thousand feet. From these great fountains flowed to the sea a rapid stream of red lava, rolling, rushing, tumbling, like a swollen river, bearing along large rocks that made the lava foam as it dashed down the precipice and through the valley into the sea, surging and roaring throughout its length like a cataract, with a power and fury perfectly indescribable. It was nothing less than a river of fire, from two hundred to eight hundred feet wide and twenty deep, with a speed varying from ten to twenty-five miles an hour.

Thus were lost four thousand acres of valuable pasture land, and a much larger quantity of magnificent forest.





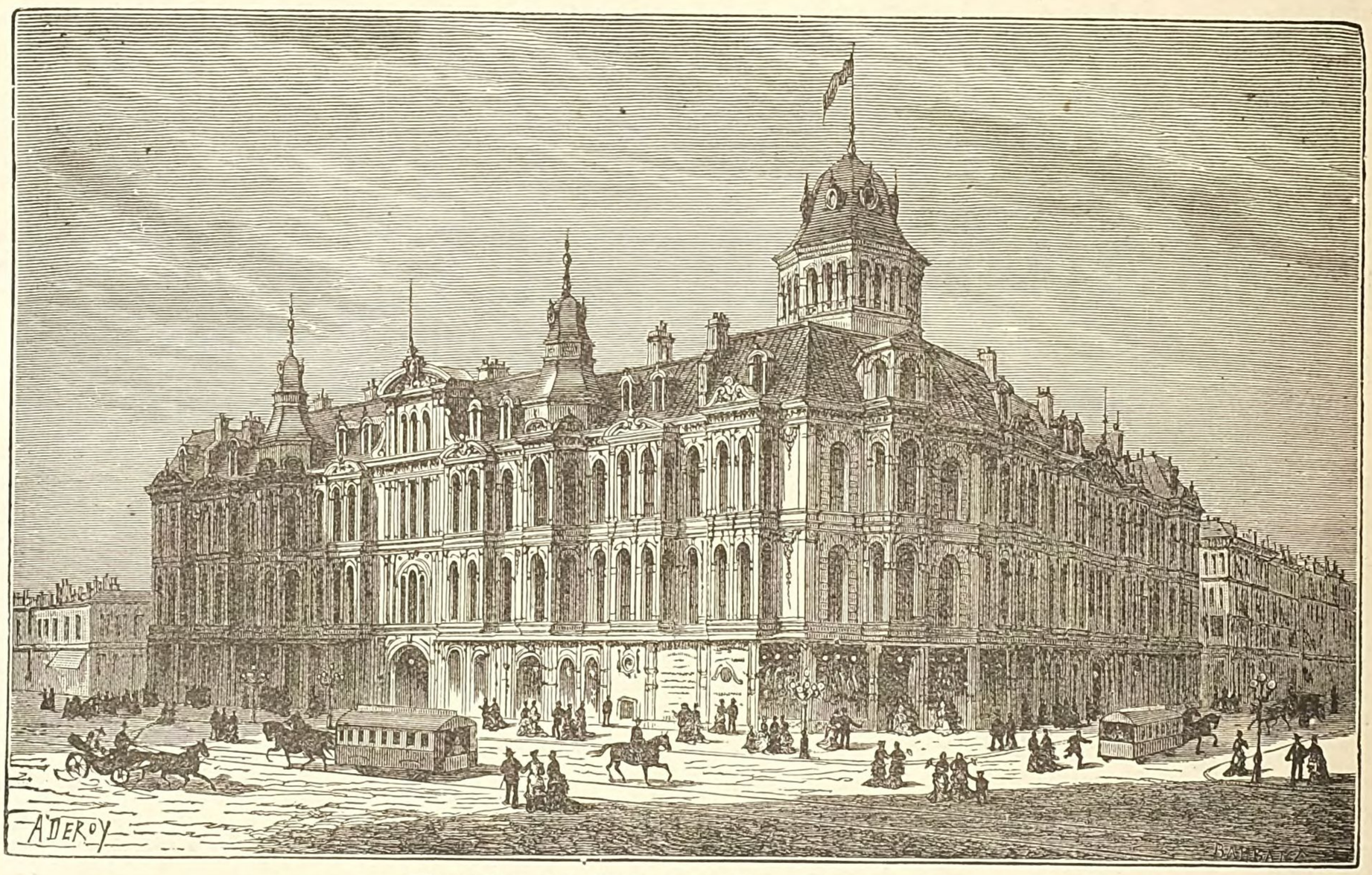
CALIFORNIA AND THE ROCKY MOUNTAINS.

SAN FRANCISCO owes its origin to Roman Catholic missionaries and Spanish soldiers, its site being first permanently occupied by a garrison and a mission in 1776. For nearly sixty years the mission remained the centre of a rude little village of adobe huts, having a population varying from a hundred and fifty to four hundred, Indians, Mexicans, and Spanish. In 1835, the first pioneer dwelling was erected, and in the following year the first frame-house. In 1847, the town contained seventy-nine buildings, which by March, 1848, had increased in number to two hundred, with a population of eight hundred and fifty. On New Year's day, 1849, the town numbered two thousand inhabitants, and its streets were full of the early miners, with their nuggets and their bags of "dust."

At this day, San Francisco stands, not merely the chief city of California, but the great commercial metropolis of the Pacific slope; a city with endless quays and docks, visited by the flags of every nation from England to China; a city of banks, hotels, shops, mining companies, agricultural exhibitions, and private houses, the most sumptuous in the world; a city of learned professors, eminent doctors, clever journalists, distinguished lawyers; a city, also, of gamblers, adventuresses, vagabonds, and thieves; a rendezvous of all nations, a Tower of Babel, where all languages are spoken, from English to Malay, Tartar,

and Celtic. Upon the whole, a charming city, an incomparable situation, dazzling atmospheric effects, a picturesque aspect.

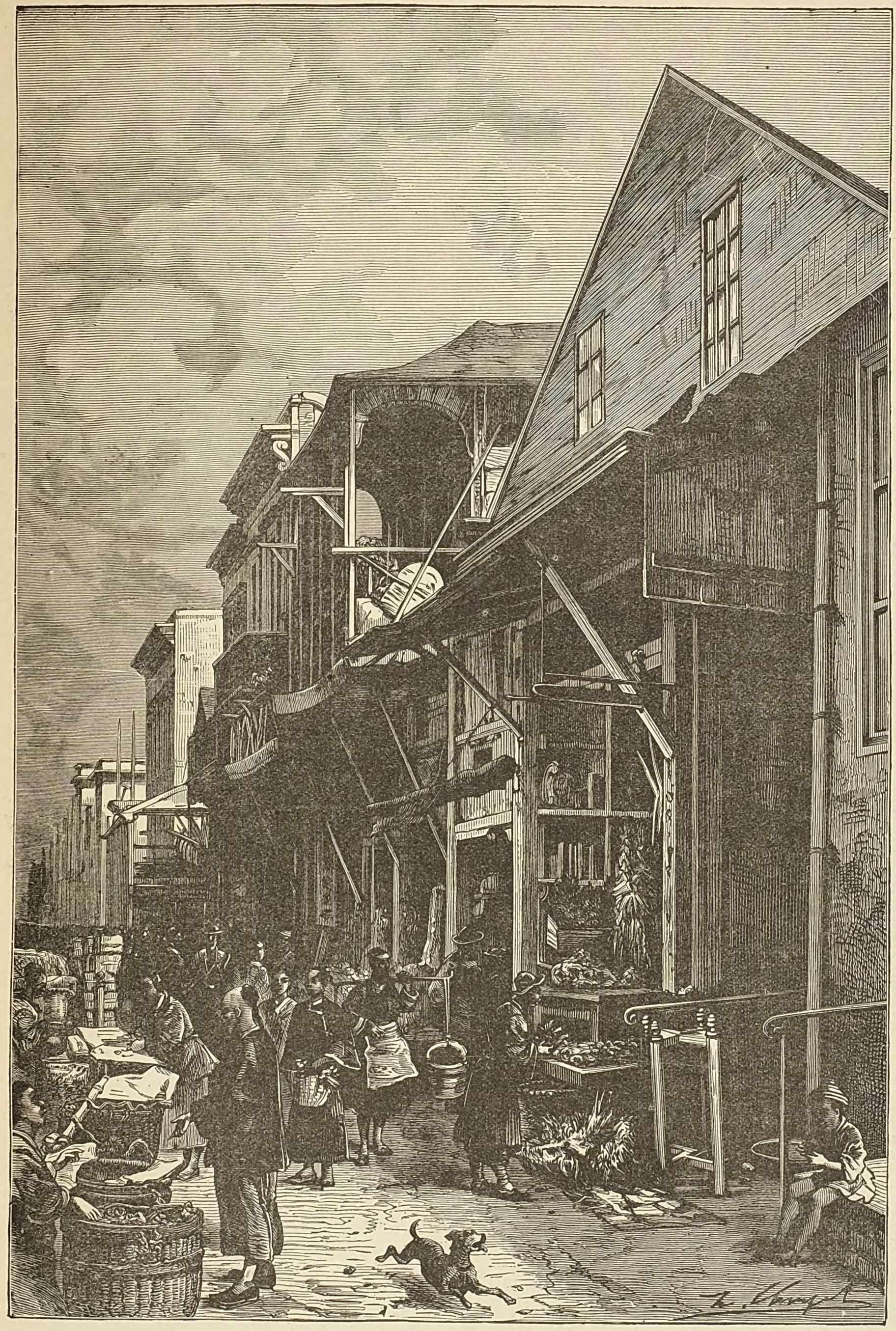
The natural surface is very uneven, and by its diversity of level gives relief to the buildings. The site of the city was a line of sandy beach, salt marsh, and mud flats, varied by narrow ravines, small shallow valleys, and sandy knolls, with stretches of close adobe soil; rocky bluffs fortified its extremities, while extensive ledges lay back of it. The original founders of San Francisco could have had no reason to suspect that they were laying out a grand metropolis, and hence whatever they projected was done with the least possible regard to symmetry or the demands of future growth. Not one important street conforms its course to the



The Grand Hotel at San Francisco

cardinal points of the compass, and but one main avenue, Market Street, is wide enough.

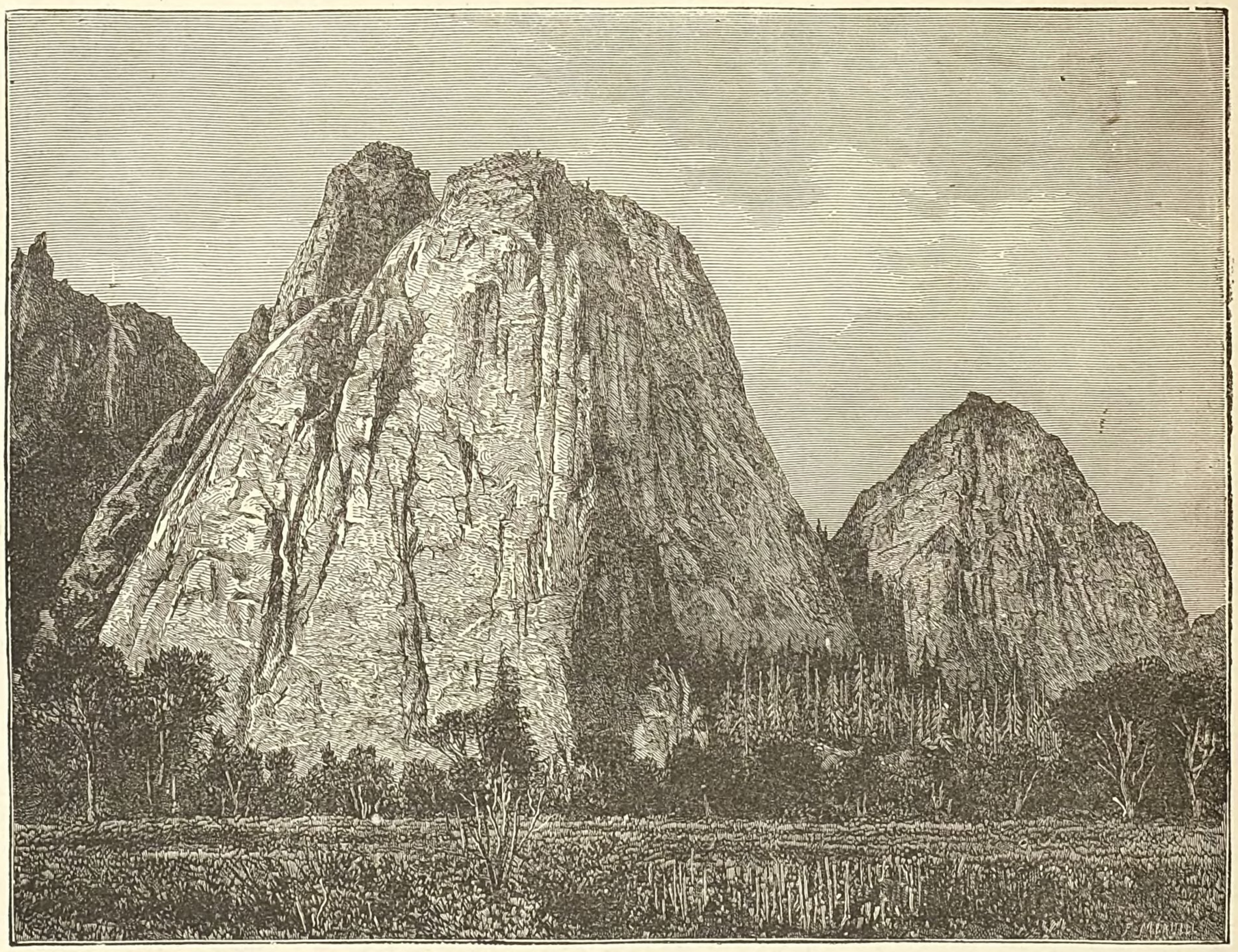
In its buildings, San Francisco shows every grade, from the stately elegance of the Grand Hotel, to the curious squalor of the Chinese quarter. The hotel stands on Market Street, occupying the whole block from New Montgomery to Second Street, with a frontage to the north of two hundred and five feet, and to the west of three hundred and thirty-five, thus covering more than an acre and a half of ground, and its four hundred rooms have all the luxury in furniture and decoration that the highest civilization can devise. What the Chinese quarter is it is not so easy to say. Only the pen of a Dickens could do justice to a theme like this. Seen from the street, the shops and stalls are quaint and Asiatic enough, but to



CHINESE QUARTER IN SAN FRANCISCO.

him who, under the guidance of a police officer, penetrates by day or night into the rickety, tumble-down, vermin-haunted hives which rise through four or five stories, all alive with swarming lazzaroni, what untold horrors are revealed!

But let us turn from the great city, with its splendor and its misery, to where, two hundred miles away, the wonderful Yosemite Valley woos the traveller to repose amid all the grandeur and loveliness of primitive nature. On page 285 is represented the valley, seen from one of those points of view at the western entrance which command the whole gigantic cleft. At the left rises the square bulk of "El Capitan," an immense granite cliff, projecting angularly into the valley, and having



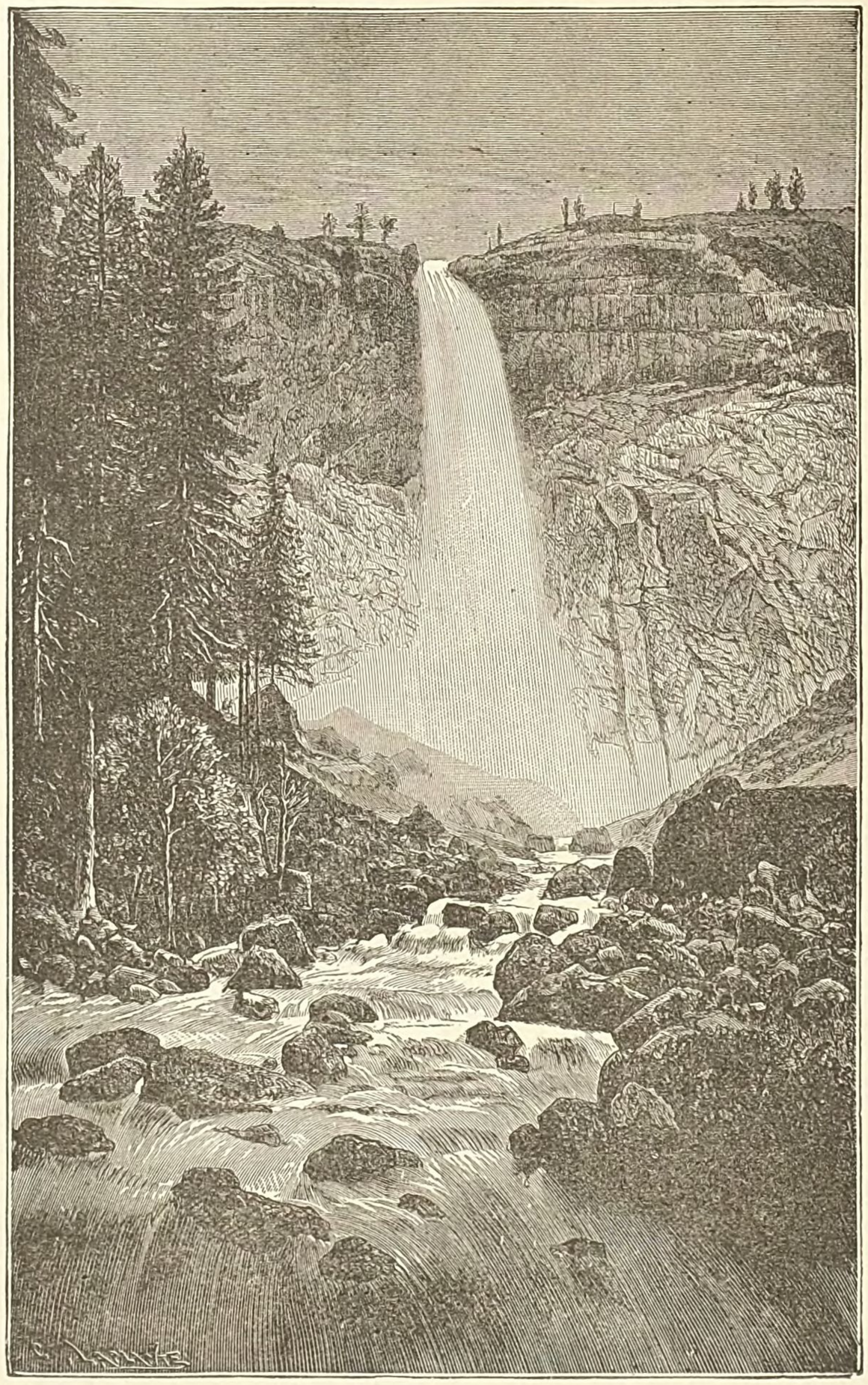
The Cathedral.

two fronts, one facing nearly west, the other south-easterly, meeting in a sub-acute angle. These two fronts are over a mile long and three thousand three hundred feet high, smooth, bare, and vertical, ending at the top with a sharp edge. The State Survey says of this cliff: "El Capitan imposes upon us by its stupendous bulk, which seems as if hewed from the mountains on purpose to stand as the type of eternal massiveness. It is doubtful if anywhere in the world there is presented so squarely cut, so lofty, and so imposing a face of rock." Behind El Capitan the North Dome lifts its rounded granite bulk three thousand five hundred and seventy feet above the valley. Seen nearer, it looks as if built of huge, concentric, over-

THE YOSEMITE VALLEY.

lapping hemispherical domes piled one upon another, and having their overlapping edges irregularly broken away. Towards the south and south-east it is so steep that no human foot has ever climbed it. On the north and west, however, it falls away in a great ridge, or spine, by which one can easily gain the very summit of the dome itself.

On the right, opposite El Capitan, is the famous cascade called the Bridal Veil.

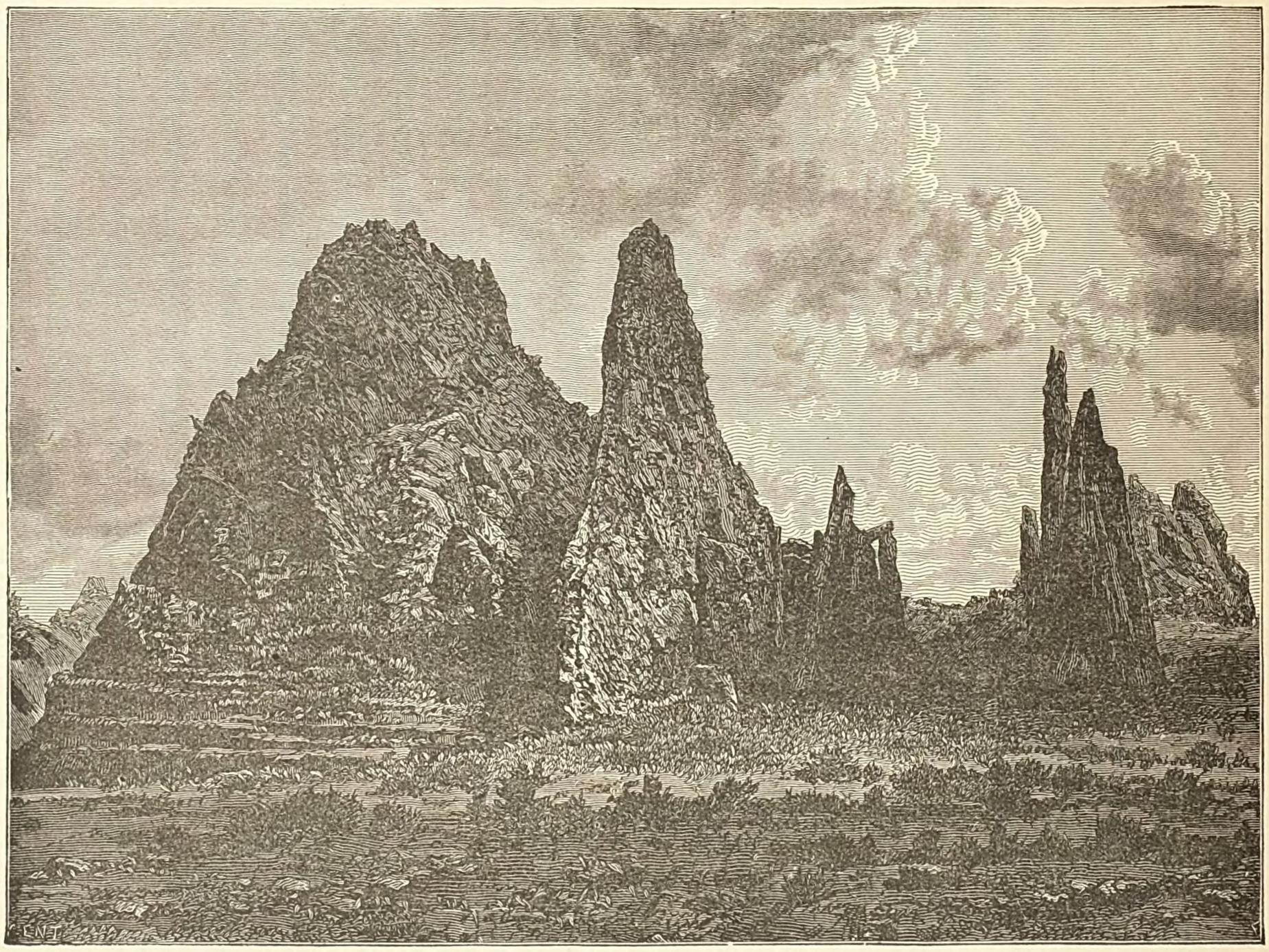


Nevada Fall.

For six hundred and thirty feet the stream, which is sixty-five feet wide at the edge of the cliff, leaps over it in one unbroken fall. Thence it rushes down the steep slope of broken rocks in a confusion of intermingled cascades, for nearly three hundred feet more. The varying pressure of the wind causes a veil-like wavering, swaying, and fluttering in the sheet of falling water, which has made the name appropriate. Half a mile

GIANT TREES OF CALIFORNIA.

further the cliff rounds outward, and swells up into an enormous double rocky bastion, the Cathedral Rocks (page 284). From certain points of view, a resemblance is fancied to exist between these cliffs and some vast, dilapidated Gothic structure. A little more than two miles east of the Cathedral is the huge Sentinel Dome, one of the most regularly formed of all the peculiar dome-like peaks about the valley, and beyond the Sentinel rises clear and sharp against the sky Yosemite's loftiest isolated cliff, the Half Dome. This is a bare crest of naked granite, four thousand seven hundred and forty feet high, cleft straight down in one huge vertical front on the north-west side, while



The Garden of the Gods.

towards the south-east it rounds away in a vast slope, rendering it, like the North Dome, easily accessible to the traveller.

The Yosemite Valley is seven miles long, and for every mile it has its waterfall. At the very extremity of the cañon, at a point where the rocky walls almost close together, the main river enters the valley with one leap of seven hundred feet, making the Nevada Fall (page 286). In purity and volume of water, and in a thousand graceful peculiarities, this fall surpasses all the others in the valley, and with it we take our last look at the Yosemite.

No sketch of California, however brief, can pass by its Big Trees, the *Sequoia*

gigantea, a kind of redwood, of which nine groves are already known to exist, while the exploration of the state constantly adds to their number. Of these the most celebrated are the Calaveras and the Mariposa Groves, the former containing the tallest Sequoia now standing, called the Keystone State, which reaches a height of three hundred and twenty-five feet. The fashion of naming these trees is amusingly illustrated in the case of the three shown in the illustration, which have been called "The Three Graces." They are about two hundred and seventy feet high, and would overtop Trinity Church in New York. At one time it was believed that the Sequoia belonged to some past geological or botanical epoch, but this idea is now abandoned, since it has been discovered that there are multitudes of infant giants of

Long's Peak.

this race scattered throughout the forests of the Sierra, of all sizes, from the seedling upwards.

From the Forest of the Giants to the Garden of the Gods (page 288) is but an easy flight for the imagination, although it be many a long league by the road. The Garden of the Gods is in the valley of a small stream called Monument Creek, which lies along the base of the mountains north of Colorado City. Ages of atmospheric work and running water have worn the rocks through which the little river has made its way into wonderful and fantastic shapes, — towers and bastions, battlemented summits and half-buried columns. What is called "the Garden" widens suddenly from a narrow gorge into a beautiful valley a mile and a half long and half a mile broad. At its southern end the mountains again approach each other as

if to form a gateway, in front of which rise huge masses of rock, walls, gigantic statues, and strange, grotesque shapes in stone. Within, as if in some palace garden of the Old World, are velvet lawns, — tall, stately pines and oaks, the growth of centuries, — masses of shrubbery, and a brilliant display of flowers, the native growth of this favored land. Amid this green luxuriance stand well-rounded columns of stone, and wonderful resemblances to figures of men, and birds, and animals. These pillars are of every variety of color, — gray, white, red, black, and blue, and rise to a height of two and three hundred feet. A singular freak of nature is a gigantic stone eagle, which it is hardly possible not to believe the work of the chisel, perched upon a column two hundred and fifty feet high. The impressive character of this solitary place is beyond description. The murmur of the water, the sighing of the trees, the towering majesty of the stone columns and figures, the grandeur of the encircling mountains, and over all, the illimitable blue sky, unite in an effect which no language can render.

Further to the north in the same state, seen from a hundred miles away, Long's Peak, with its attendant mountains, rises against the sky, reaching at its highest point an altitude of 14,056 feet. It is needless to add to the illustration (page 289) which represents this scene, except to suggest the coloring: in the foreground the intense green of the prairie, blending into the black granite of the nearer hills, and over and above these, massed higher and yet higher, in billowy confusion, the sharp white peaks clad in perpetual snow. Indescribable varieties of shade and color are produced in this range by the sun, in his passage across the sky. In the morning they are veiled in mist; under the strong light of noon they are luminous and distinct; at sunset they soften and take hues of rose and violet, and at twilight they stand out black and clear against the red sky. Late in the afternoon, too, the sunlight, striking into the huge valleys, reveals their width, and gives some idea of the great spaces between the outer heights, and the remoter, snow-crowned peaks which top the ridge.

Another scene from this wonderland of mountain and river is represented in the steel engraving facing this page. An ingenious theory has been advanced to account for the singular forms of these cliffs, which, if true, equally explains the strange rock-configuration of the Garden of the Gods. The high winds and blowing sands and sharp rains of this region, acting upon the soft rock and clay of these hills, are believed to have shaped them into the forms we now wonder at. The share which the high winds, and the sand they take up and blow with great force in right lines, in curves, and in whirls, has had in this great work, both in its fantasies and in its destructions, is such as can hardly be realized by those who have not witnessed these atmospheric phenomena. Sand showers and sand whirlwinds are of almost daily occurrence. They load the air with sand, they carry it everywhere, — among

AZURE CLIFFS.

rocks, into houses, through walls; and there keep it at its work of destruction and reconstruction. In a house among these mountains there is a window that one single storm of this sort has changed from common glass into the most perfect of ground glass; and the fantastic architecture this agent has created among the rocks of the country, from the North Platte to Fort Bridger, can only be understood and appreciated by being seen.

"The tall, isolated rocks," says Meline, "that surmount a hill, sometimes round, but always even and smooth as the work of the finest chisel; the immense columns and fantastic figures upon the walls of rock that line a valley for miles; the solitary mountains upon the plain, fashioned like fortresses, or rising like Gothic cathedrals; the long lines of rock embankment one above another, formed sometimes into squares like a vast fort, and again running along for miles, a hundred feet above the valley, looking like the most perfect of railway embankments, with the open space occasionally for a watercourse: these, and kindred original fashions of nature, with details indescribable and picturesque, are a constant excitement and inspiration to the traveller."

The color of the clays and conglomerates of which these and similar cliffs are composed, adds greatly to their picturesque effect. They are often dyed, by the presence of iron, copper, and sulphur, into brilliant and startling combinations of colors, sometimes beautifully blended, sometimes opposed, with that glaring contradiction to the laws of man of which nature is so fond, and in which she succeeds so perfectly. Every shade of yellow is represented, from a delicate cream-color to a glaring saffron; bright reds and scarlets, and intense purples, shading off into black, are relieved by occasional patches of vivid verdure, or by the more sombre green of the few daring pine-trees that cling to the cliff.

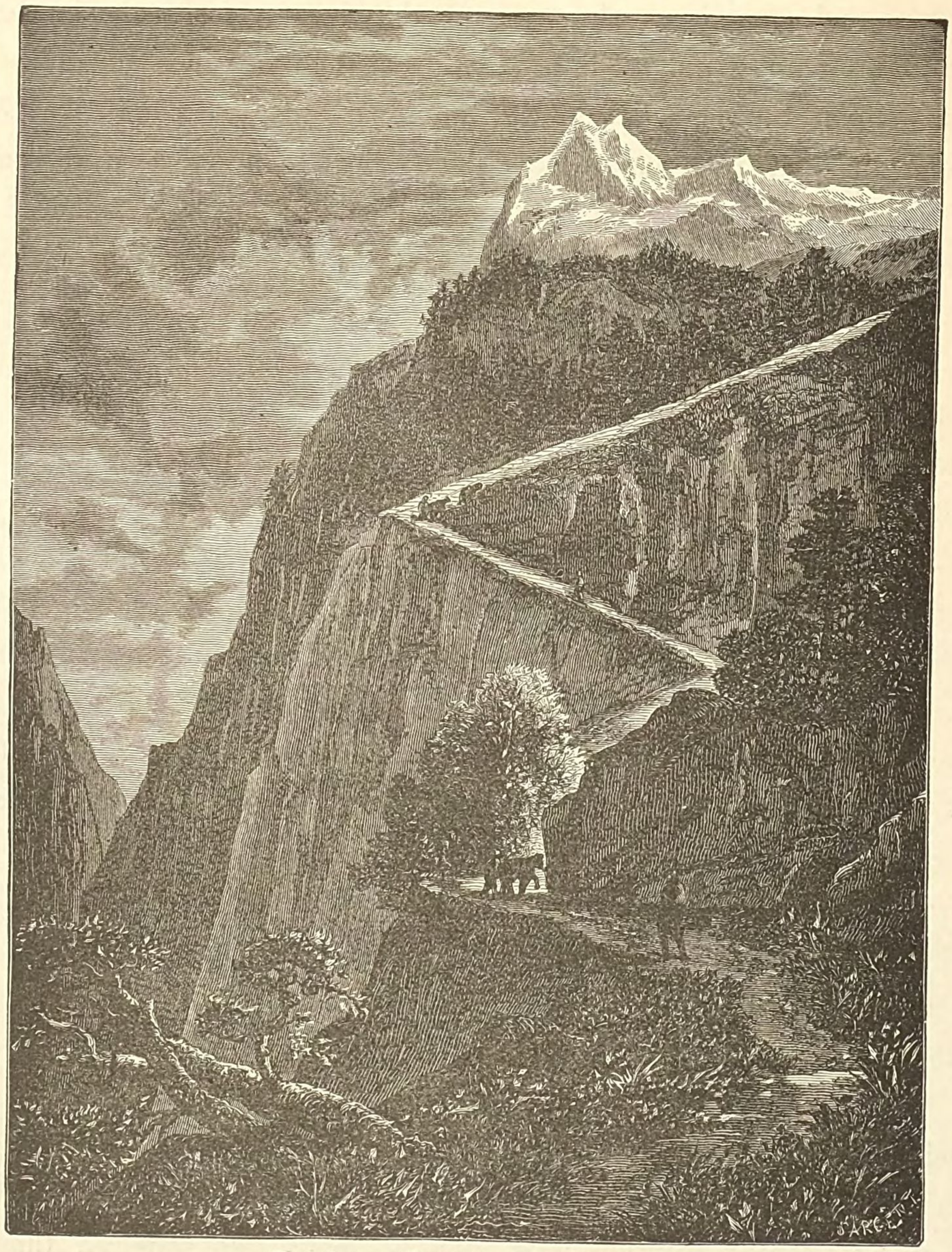
Besides the soft conglomerates which compose these cliffs there are, also, the hard basaltic rocks which underlie the clay, breaking through in sharp lines and crests, and adding the variety of their abrupt outlines to the softened and rounded forms which elsewhere prevail.

Next neighbor on the north to our own Pacific States, the territory of British Columbia has recently attracted so much attention from its gold-fields, that it must not be passed by without mention. Its area is about two hundred thousand square miles, with a coast-line of four hundred and fifty miles. Its shore abounds with inlets, navigable by steamers and sailing-vessels of moderate draft, and affords admirable communication with the settlements springing up in the interior.

From Victoria on Vancouver Island a line of steamers runs across the Gulf of Georgia, and conveys passengers and freight as far as the head of navigation on the Lower Fraser. Thence, amid a thousand difficulties, the road climbs to the mining

regions beyond. Below is represented one of the passes in the mountains. The officer in charge of the government exploring party describes it thus: —

"The trail at first runs up the backbone of a singular spur, winding further up among crumbling fragments of rocks, and finally reaching by a dizzy path the summit of a perpendicular wall which crowns the mass. The cliff is composed of blocks of columnar basalt in the shape of multangular prisms, averaging in their



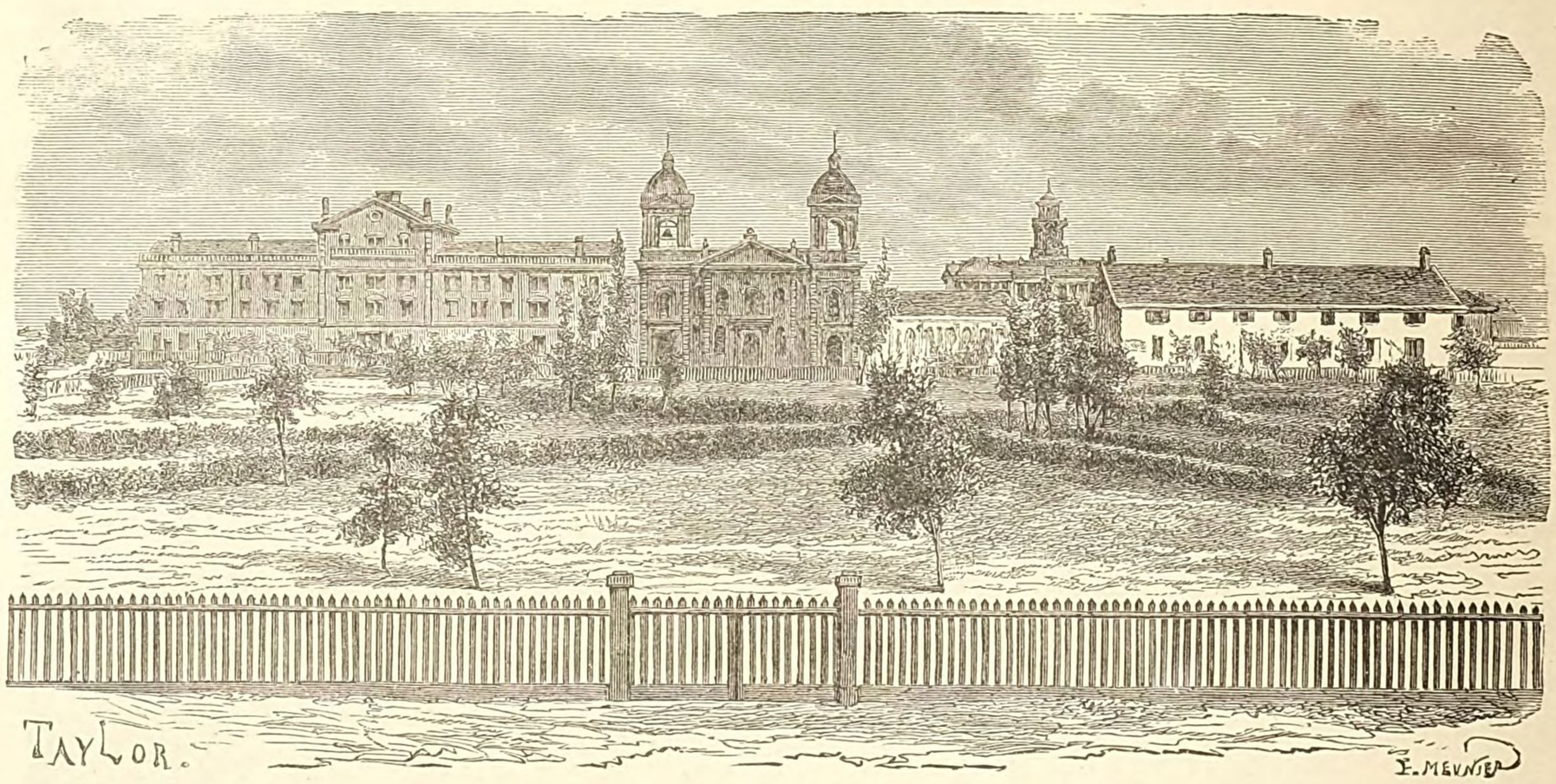
Road in British Columbia.

perfect state about two cubic feet in size, usually stained of a dull red color, and somewhat vesicular. The blocks are fixed together as perfectly as if by human agency, and the layers are horizontal. Thus on the summit, which is perfectly level, patches are met with in which, the scant soil having been washed away, the jointing of these singular stones, almost resembling mosaic pavement, is clearly visible, and towards

FOREST IN BRITISH COLUMBIA.

the edge of the cliff large portions of the rock have crumbled away, leaving standing, in many places, abrupt columnar masses as much as fifty feet in height."

The whole country is overgrown with forests, of whose magnitude it is impossible to form any estimate. (See page 293.) The cedar, hemlock, and pine attain a growth rivalling the Sequoia of the more southern coast. Ascending the Fraser, the traveller is filled with wonder and admiration at the woods which line both shores. Varieties of pine, firs of prodigious size, and enormous poplar-trees, predominate. The vine and the soft maple, the wild apple-tree, the white and black thorn, and deciduous bushes in great variety, form the massive undergrowth. The vegetation is luxuriant to an inconceivable degree, and in early summer presents a peculiarly beautiful appearance. The eye never tires of ranging over the varied shades of the fresh



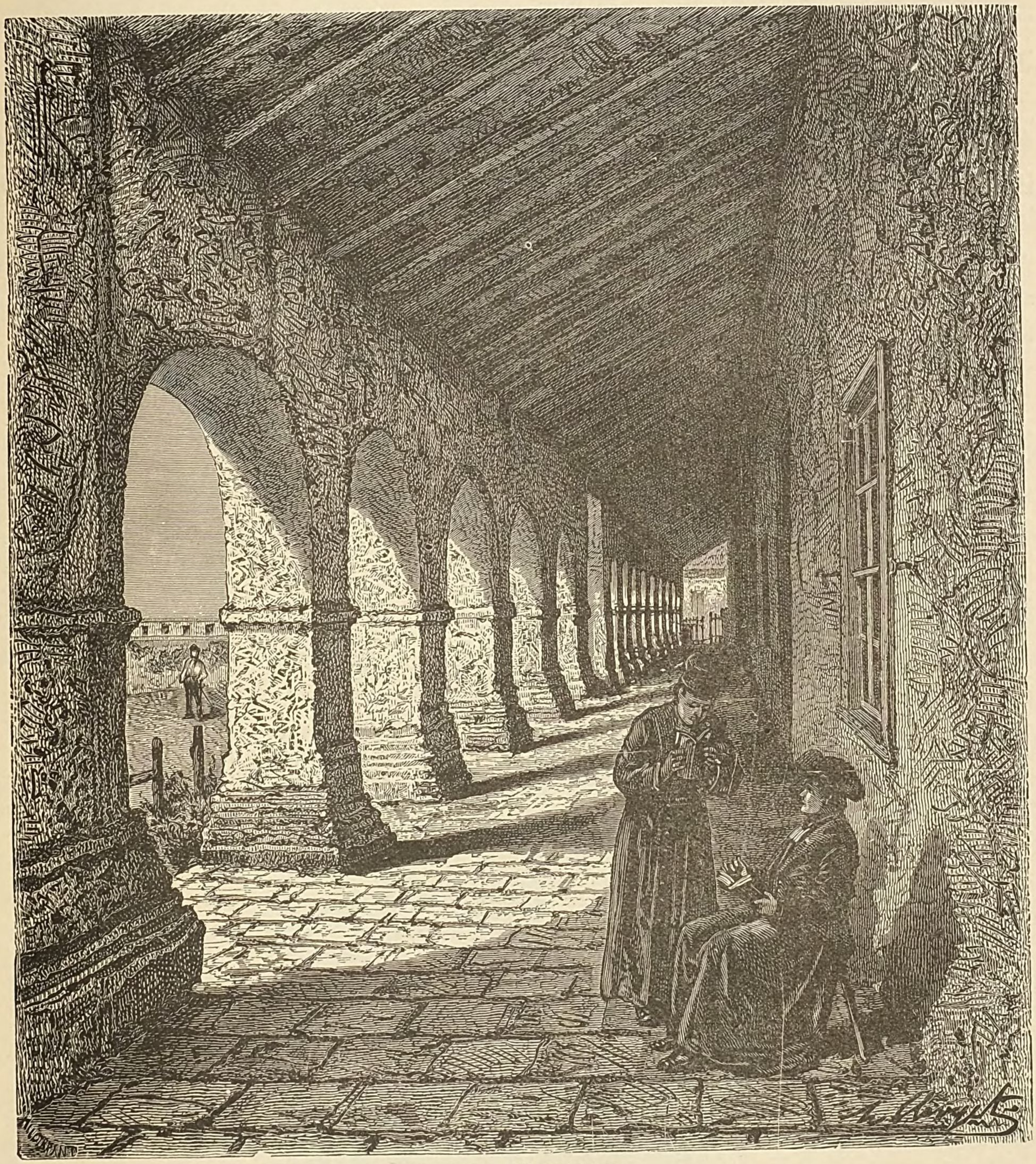
Jesuit College. Santa Clara.

green foliage, mingled with the white flowers of the wild apple, which fill the air with delicious fragrance; and the mind looks forward with regret to the prospect that this beautiful forest must some day fall before the emigrant's axe.

With the Roman Catholic missionaries who founded San Francisco, our chapter began, and it closes with two illustrations representing, the one, their College at Santa Clara, given above, and the other, the early mission buildings erected by them at Monterey, which we present on the opposite page.

Santa Clara, a few miles south of San Francisco, was the original centre of the Franciscan mission, and it is now the seat of a Jesuit College which draws students from all the Pacific States. Sheltered amid groves of oaks and cedars, overlooking the ocean, and defended by high mountains from the violence of the winds, the establishment of Santa Clara, by its situation and by the landscape which surrounds it, would offer an inexpressible attraction to him who seeks a poetic home,

far from the world and its sordid cares. Here the Franciscans made their head-quarters, and hence, in every direction, at the close of the last century, they carried on their work of civilizing and Christianizing the Indians. Working amid many difficulties, they had, however, accomplished much good, when they were driven out



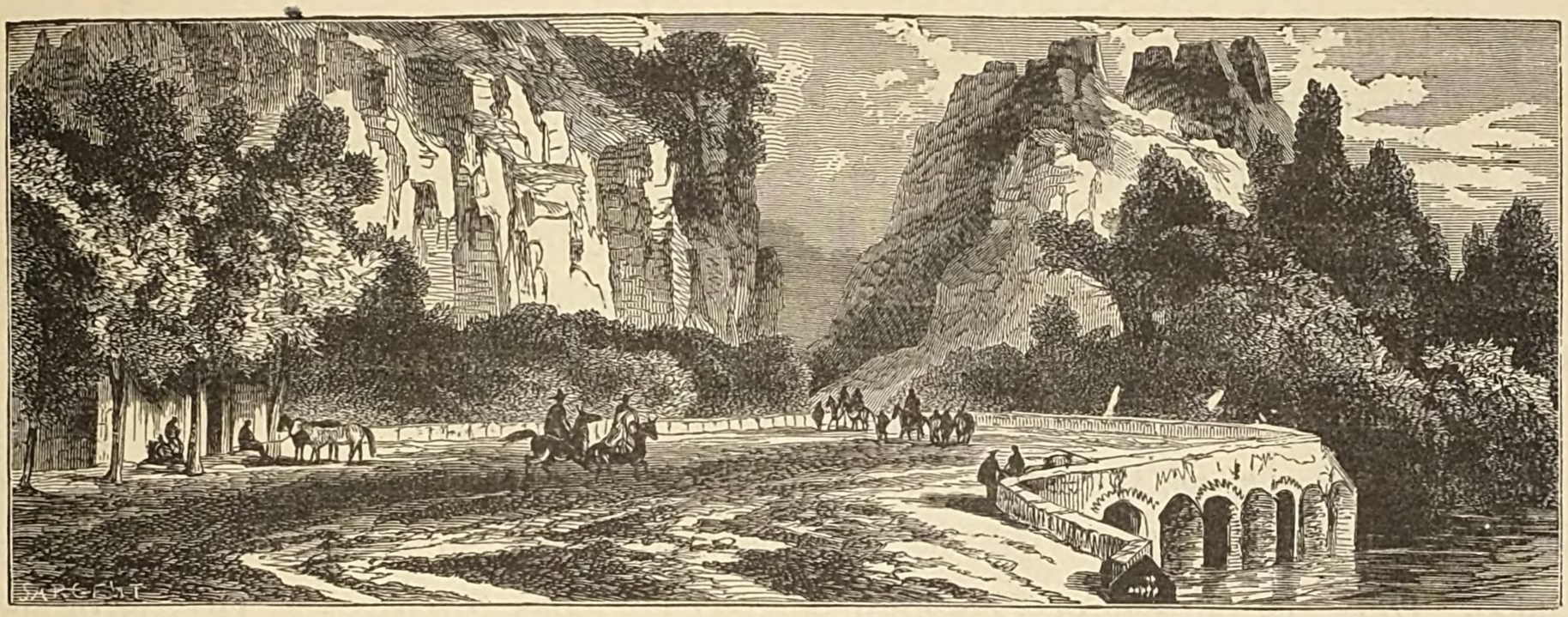
Mission. Monterey.

by the Mexicans, and their system destroyed. Years after came the Jesuits, and directing their labors to an entirely different end, worked with no less energy and patience. Their establishment now numbers forty priests and nineteen lay-brothers; it has about two hundred students; its library contains twelve thousand volumes.

It is worth while to note in passing that it was a Jesuit who planted the first vineyard in Santa Clara, and established the first wine-press in California. Of all Californian wines at this day, that of the Mission is the one most esteemed by connoisseurs.

Santa Clara is an American city, full of Anglo-Saxon life; Monterey, on the contrary, is all Spanish and Indian. In Monterey men boast of their ancestry, and put on airs of being old Castilians.

The Franciscan mission at Monterey had the same history as that of Santa Clara, and shares in the same decay. Only the old cloisters yet stand, and imagination peoples them still with venerable figures in the traditional dress of their order, reading their breviaries, or pacing up and down in solitary meditation, quite unmindful that but a few miles away are the stir and uproar, the money-making, the extravagance and luxury, the crime, — in a word, the modern American life, of the great city which bears the name of their patron saint.



MEXICO.

ON Good Friday, the 21st of April, 1519, Cortez, the Spanish conqueror, landed upon the coast of Mexico. The spot where he touched ground received from him the name of Vera Cruz, the "City of the True Cross," in honor of the day, although it was not till the close of the century that anything like a town really existed there, and it received its city charter only as early as 1615.

Approaching Vera Cruz from the landward side, as represented in the illustration (page 299), the white walls, the domes and towers of the city, appear in silhouette over a line of sandy hillocks known as *Medanos*. Here and there a few white houses with flat roofs, shaded by palm- and banana-trees, mark an oasis in the midst of the arid, or else marshy desert which stretches around the town. In the horizon shines and sparkles the sea. As we approach, the line of ramparts, with their bastions and their curtains, becomes distinct; entering the city, the traveller is pleased with the air of opulence which prevails, the broad and well-paved streets, and the extensive and elegant houses. Many of the dwellings are richly decorated; there are balconies covered with delicately-arched galleries supported by graceful colonnettes; there are gargoyles worthy of a Gothic cathedral; there are bas-reliefs in endless variety. A singular feature of the streets of Vera Cruz is the presence of multitudes of small black vultures, which serve as city scavengers, and in consideration of these services enjoy complete immunity from molestation of every kind. By night they perch on the cornices of dwelling-houses and on the tops of the public buildings. From the windows of his hotel the traveller sees

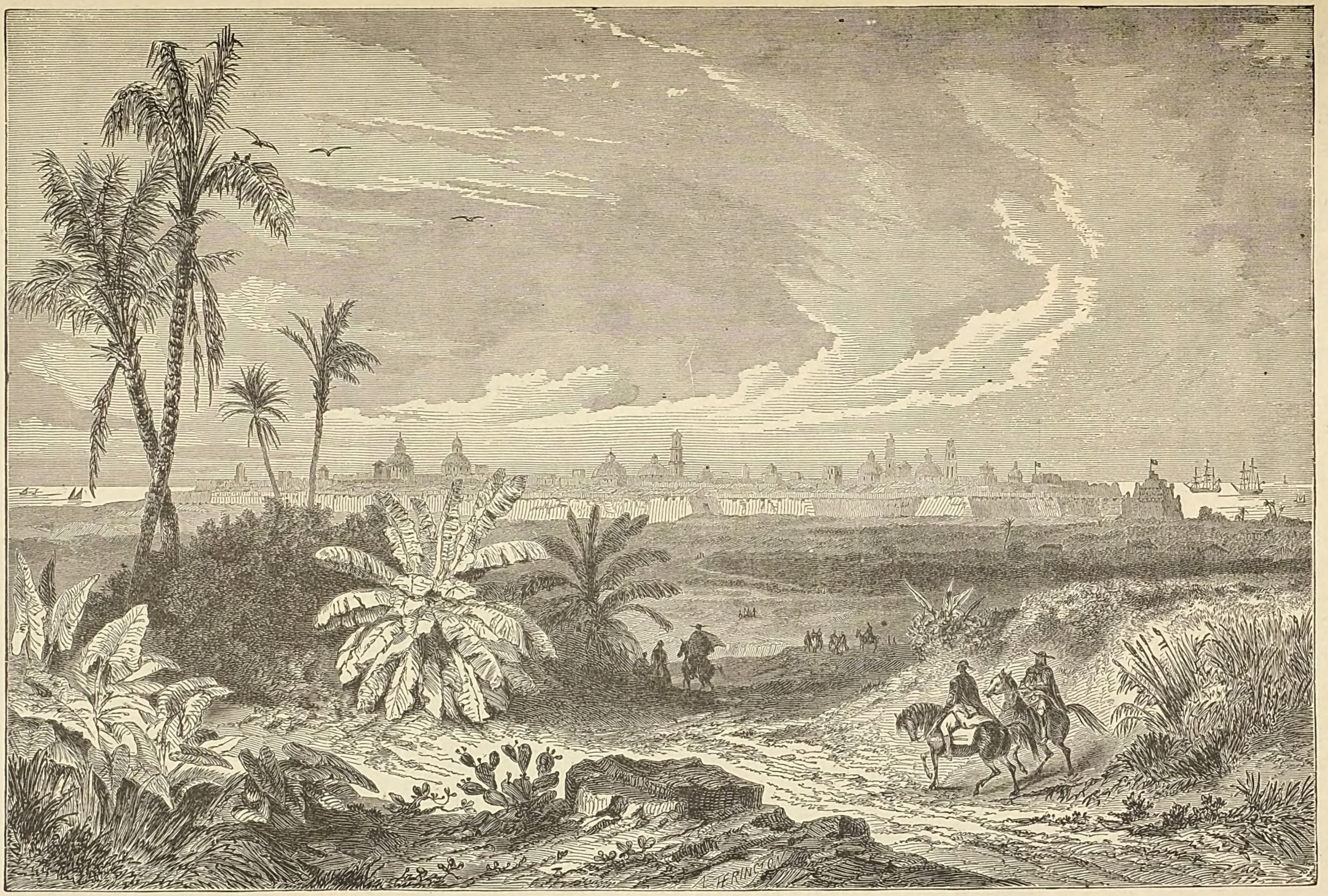
them, at twilight, flying in crowds towards the cupola of the cathedral and the tower of the government house, where they establish themselves for the night, sitting in long black rows which are irresistibly comic to behold.

Opposite the city, about half a mile out to sea, stands the Castle of San Juan de Ulloa, on an islet of coral formation. The castle is an irregular parallelogram with four bastions, one of which bears a light-house, and another the ruins of a tower, partly destroyed in 1838, at the time of the French bombardment. All this fortification, as well as the walls and public buildings and most of the houses of Vera Cruz, are built of a kind of madrepore, the only stone found in the neighborhood. Only the curtain of San Fernando, which looks towards the city, is of hard stone, brought from Spain, it is said, a little at a time, in merchant-ships upon which the duty was made obligatory of transporting each a certain number of hewn stones.

The city of Mexico is, without question, the finest in the republic. The houses are usually three stories in height, and built in so liberal fashion that it would be easy to make two stories out of one, and a whole suite out of each separate room. They are painted in rather crude tints; yellow, for the most part, predominates. Here, also, are gargoyles of much character, and beautiful iron-work adorns the balconies and the lower windows. The streets are well paved and have good sidewalks, and are crowded all day long by a population who seem to have little else to do but to amuse themselves in the open air.

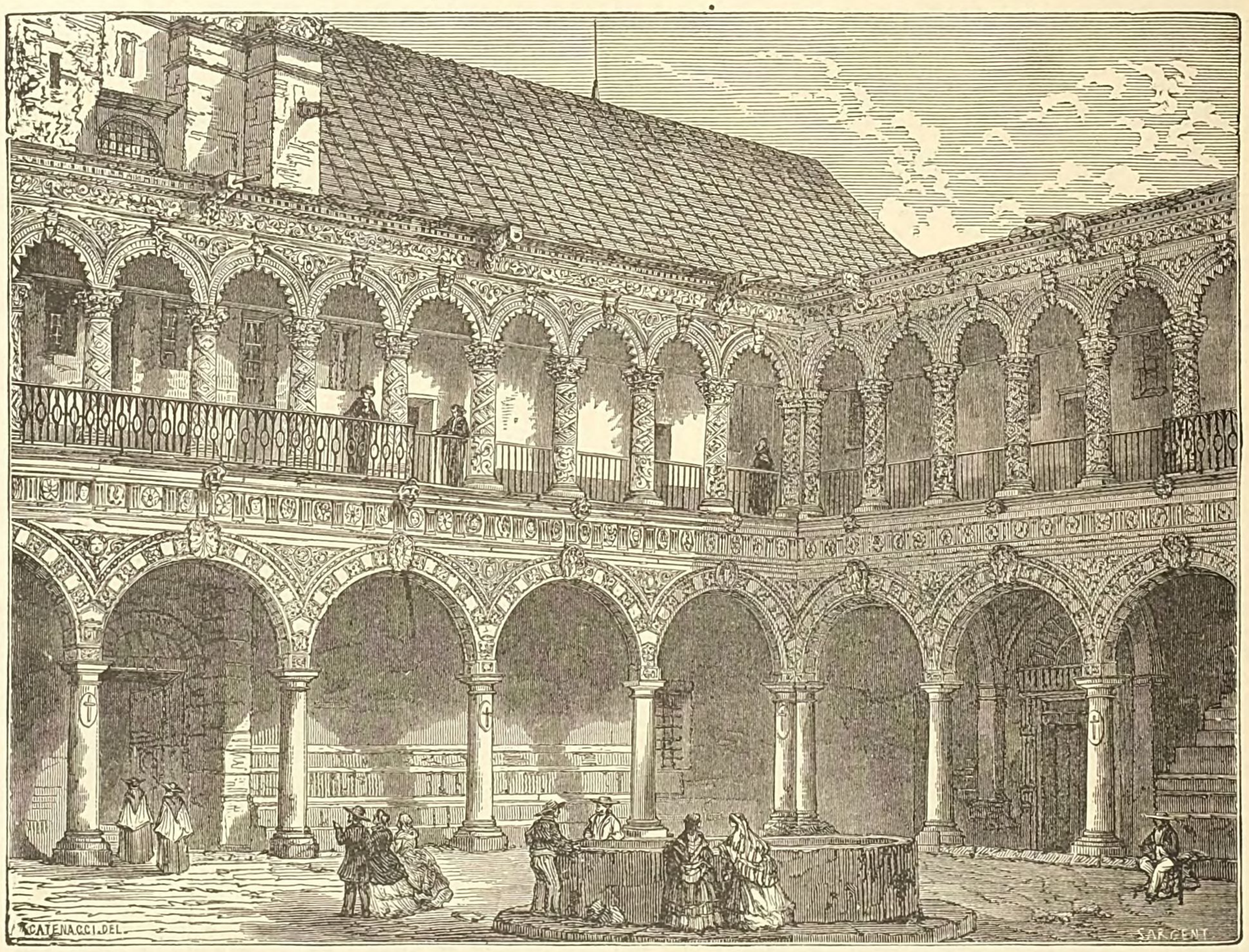
Sixty churches and forty convents, with all their personnel of priests, monks, and nuns, — gray, black, white, and blue, — give a strongly marked character to the city. A pretty custom prevails in Mexico, full of the perfume of past ages. At six every evening rings the *Oracion*, the Angelus; all the inhabitants stand still, uncover their heads, and wish one another *buena noche*. In-doors the same scene occurs, and in the fields all the farm servants gather at the sound to kiss the master's hand.

The Convent of La Mercia (page 300) is an immense building, in other respects not remarkable, but containing in its cloister the most exquisite instance of Moorish architecture in the city of Mexico. Situated as it is in the very heart of a populous quarter, this cloister, in its silence and solitude, forms an impressive contrast with the bustle and noise outside. An incomparable sadness prevails within its walls. Now and then an *aguador* comes to fill his water-jars at the little fountain in the centre of the paved court, and the quaint garments of the nuns flutter as they walk under the arches, or a group of tourists invade the solitude, involuntarily hushing their noisy chatter; but more frequently not a living creature is to be seen in the immense galleries, and not a sound can be heard save the drip of the fountain, and the dulled roar of the city, coming in from over the roofs which surround the enclosure.



VERA CRUZ.

The Alameda (page 301) is the finest of all the public parks in the city. It contains many beautiful gardens which would be an ornament to the cities of the Old World. Founded in 1592, it was planted with poplars and willows that had grown to magnificent size, when, in 1730, a traveller counted some four thousand of them. At the present day this park is well kept as regards walls, and avenues, and fountains, and gardens, but many of its trees have disappeared. It contains, however, enough shade to make it an agreeable resort, where children play and the idle loiterer sits with his book.



Convent of La Mercia.

A favorite excursion from the city of Mexico leads to the Castle of Chapultepec (page 302). An oasis of green, Chapultepec, the little hillock, two hundred feet high, rises amid the valley, surrounded with running water and covered with splendid vegetation. Magnificent cypresses, whose trunks are seventy-five or eighty feet in circumference, rear their leafy heads, defying the passage of centuries to abate from their vigor and luxuriance.

Chapultepec is one of the most ancient historic places in the republic. In the eighth century, according to old chronicles, the hill was already occupied by a population remarkable for their industry and civilization. For many centuries it was held by the nomad people from the north till the Mexican hosts possessed themselves of

it. Chapultepec then became a sort of shrine to which pilgrimages were made; and as popular devotion cooled, the Aztec kings made an historic museum of it, until in the time of Montezuma II. it served as the imperial residence. The modern castle, built by the Viceroy Matias de Galvez, was transformed in 1841 into a military school, and more recently Miramon, having restored it, made the castle his residence.

A journey of a few miles to the east of the city of Mexico brings the traveller to the half ruined village of Tlalmanalco. In the midst of the cemetery, near the modern church, rise the superb arches (see page 304) whose construction dates back to

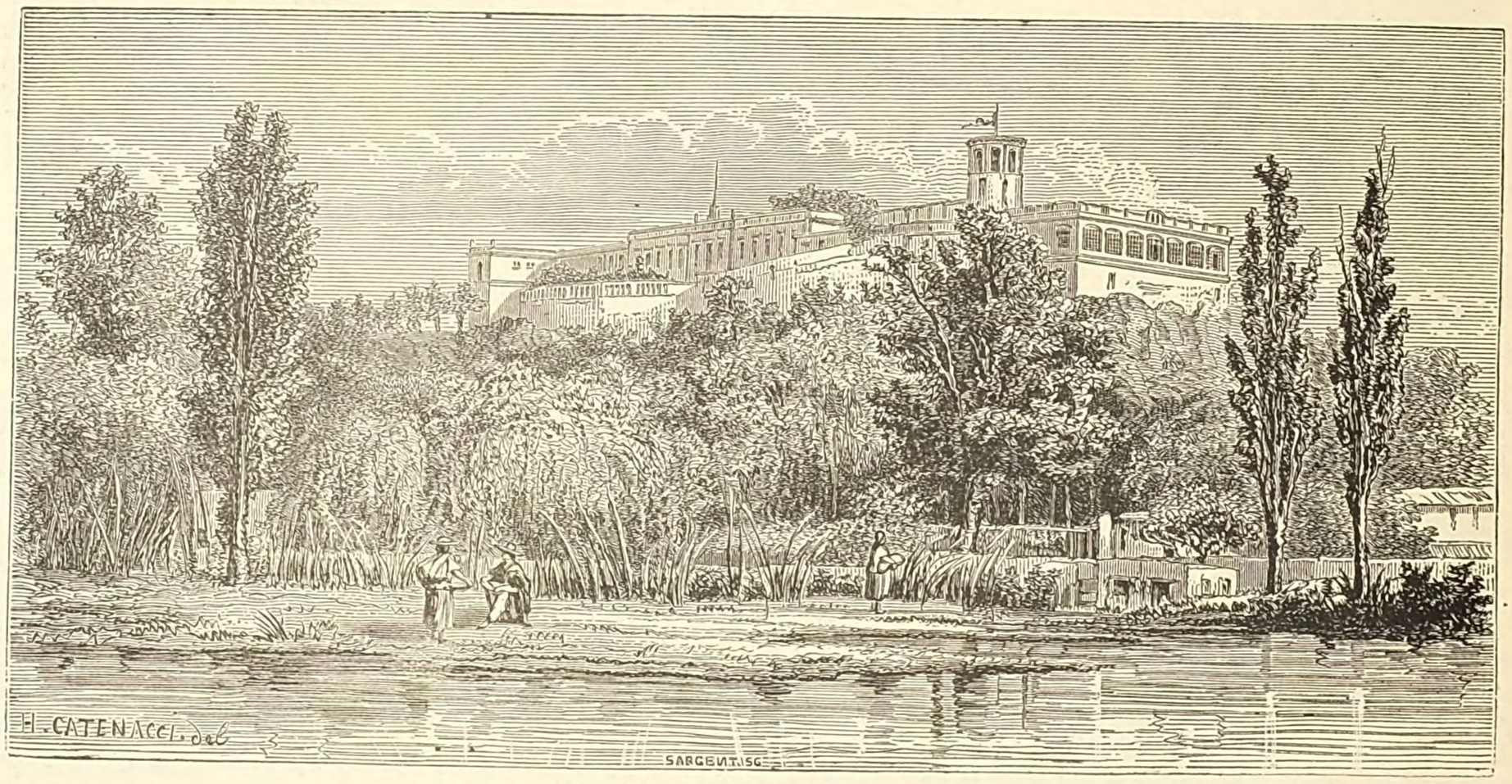
The Alameda.

the first years of the Conquest. These ruins, according to M. Laverrière, are the remains of a monastery of the Franciscans, left by them unfinished.

The architecture of these arches is truly remarkable, and the form of the columns, the capitals, and the carvings, suggest the Moorish, the Gothic, and the Renaissance; while the leading conception is Spanish, reminding one of the Alhambra, and the ornamentation has the true Mexican stamp, — rich, capricious, fantastic, and in part symbolic. The ruins of Tlalmanalco are unique in their kind, and it

is not, perhaps, too much to say that there is nothing in Mexico to be compared with them in value and interest to the student of architecture.

A reminiscence of the original inhabitants of the country is found in the Floating Gardens represented on page 303, an industry of prehistoric date, now turned to the purpose of supplying the city of Mexico with vegetables and flowers. The population of Santa Anita and Ixtacalco, two pretty little villages near the city, is composed exclusively of Indians, a simple folk, scarcely changed in any respect from the condition of their forefathers at the time of the conquest. They are all landowners, but their estates are little garden-plots destined to float upon the lake, and to lay out these gardens requires long preliminary labor. Before planting their flowers, they must prepare a sort of raft, made of layers of reeds and rushes, and it is not till this has been well constructed, and compacted by time, that the fertile soil



Castle of Chapultepec.

is brought in baskets and by slow degrees packed upon this foundation, fragile yet durable.

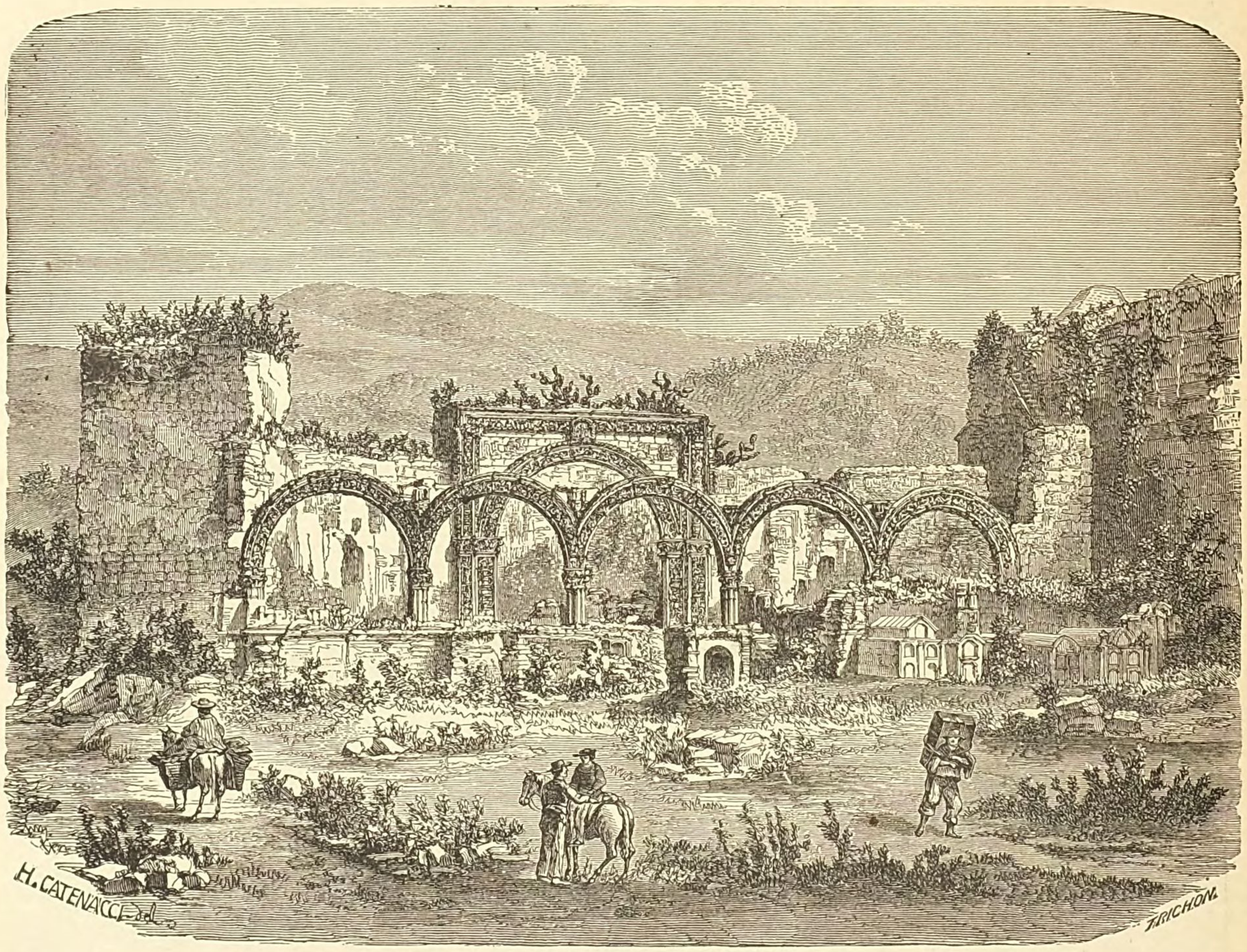
At certain times of the year nothing is more beautiful than these gardens, filled with all the floral splendor of Europe, to which are added wonderful varieties of native growth. From the avails of these *chinampas* the Indians of the two villages live in great comfort. To cultivate them is an easy task, and to tow them about over the surface of the lake requires strength, but little industry. A strong rope and a canoe with sturdy rowers is all that is needed, and it is harvest time all the year round in these well-watered gardens, fertilized by the glowing Mexican sun.

From Vera Cruz a steamer runs to Havana, stopping at Sisal, one of the few seaport towns of Yucatan. The passage is made in three days, and from Sisal the traveller makes his way some hundred miles into the interior, in search of the

FLOATING GARDENS OF MEXICO

remarkable ruins which render Yucatan exceptionally attractive to the archæologist. The two most important groups are those of Chi-Chen and those of Uxmal, which we shall briefly describe.

The edifices yet standing at Chi-Chen are all found within a circumference of two miles, although outside of this space are ruins extending over a considerable region. These would seem to have been structures of less consequence, while the group of buildings in the centre were evidently their important public edifices. What were the exact uses for which these huge masses of masonry were intended it is not



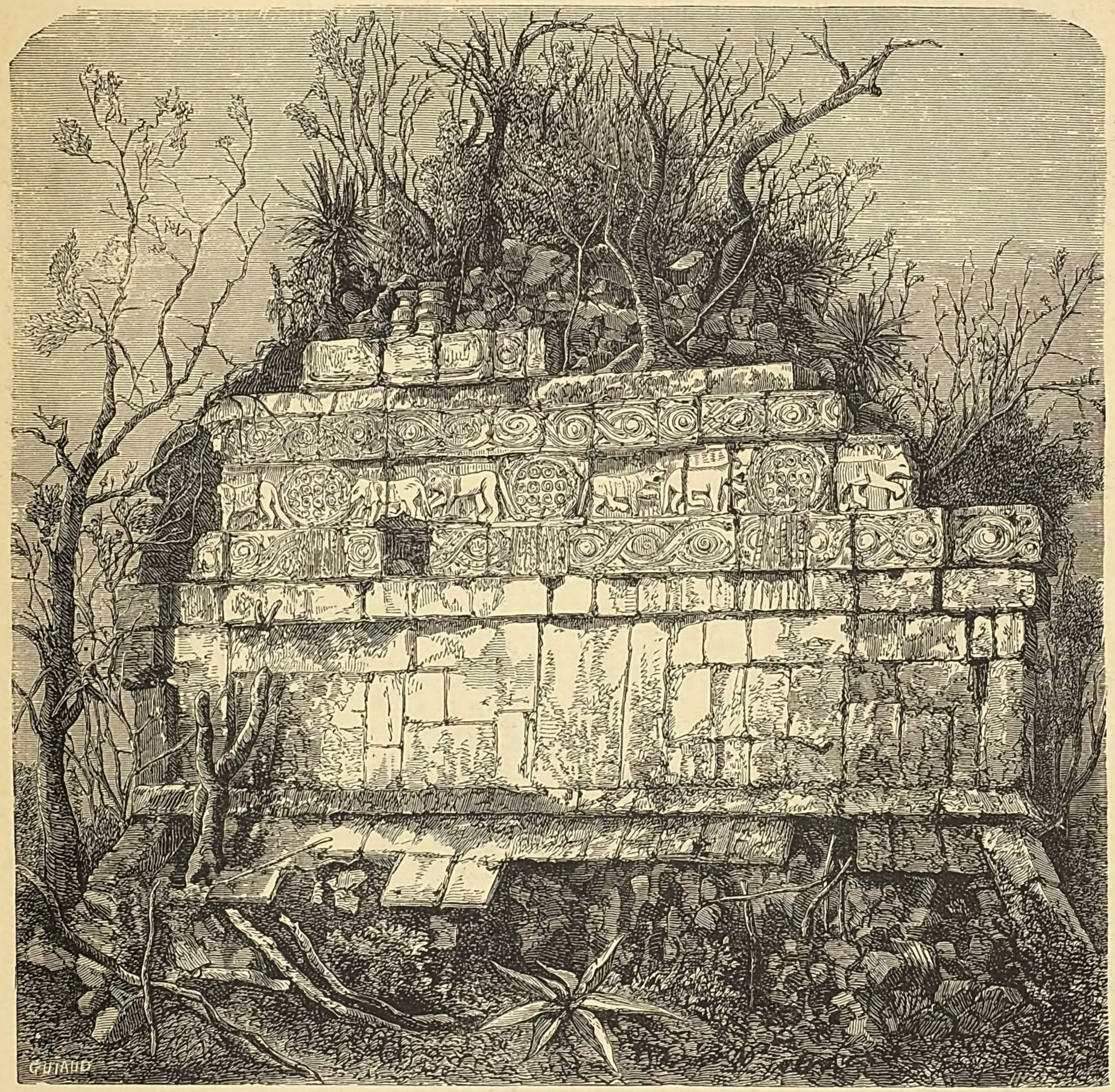
Ruins of Tlalmanalco.

easy to say, but names have been applied to them by explorers in accordance with their conjectured design.

They stand on a succession of terraces, composed of rubble imbedded in mortar, and held together by finished walls of fine concrete limestone. From these terraces the buildings rise perpendicularly generally to one half their height where there are entablatures, above which to the cornice, the façade is laid off in compartments which are elaborately decorated with stone sculpture, illustrated with various hieroglyphical figures, and varied by elaborate borders, the whole work being executed with great accuracy and precision. In height these buildings rarely exceed twenty-five feet, and they seem

to have been long and narrow, and windowless. The rooms within, lighted only by the doorways, were finished with a sort of white stucco, and painted in fresco, the colors being still in good preservation, sky-blue and light green predominating. The doorways are rectangular and about seven feet in height, stone rings and holes at their sides indicating that doors once swung in them.

The ruined structure, of which a portion is here represented, is called "the

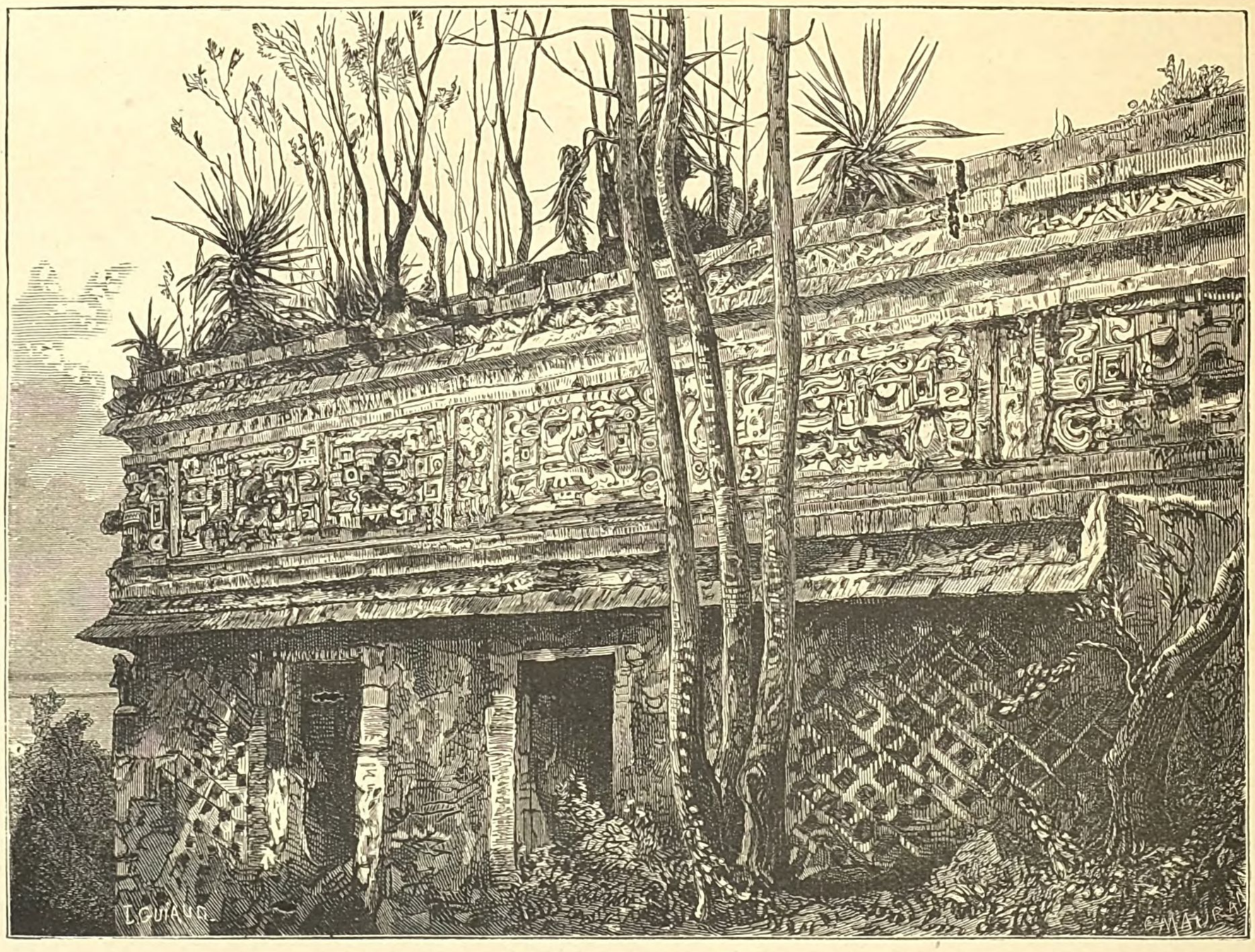


Bas-relief of Tigers. Circus, Chi-Chen.

Church" by the natives, but has rather the appearance of a circus or gymnasium. A thicket of tangled vegetation surrounds it, and the roots of the trees that grow on its top have penetrated and broken apart the massive stone work, leaving little of the decoration perfect save the bas-relief of tigers, representing these animals, two by two, separated by a circular medallion containing lesser circles.

The principal building of Chi-Chen has been called the "Palace of the Nuns;"

but probably "the Palace of the Vestals" would be a designation more in harmony with the early Mexican religions. The façade on the opposite page measures thirty-two feet in length and twenty in height. Over the doorway is a heavy stone lintel, containing two double rows of hieroglyphics, with a sculptured ornament between; and an oval medallion above contains a representation of a human figure in sitting posture, with a curious head-dress of feathers and tassels. The ornaments of this façade are composed of small square blocks of stone cut to the depth of an inch and a half, apparently with the most delicate tools, and inserted into the wall. The wall

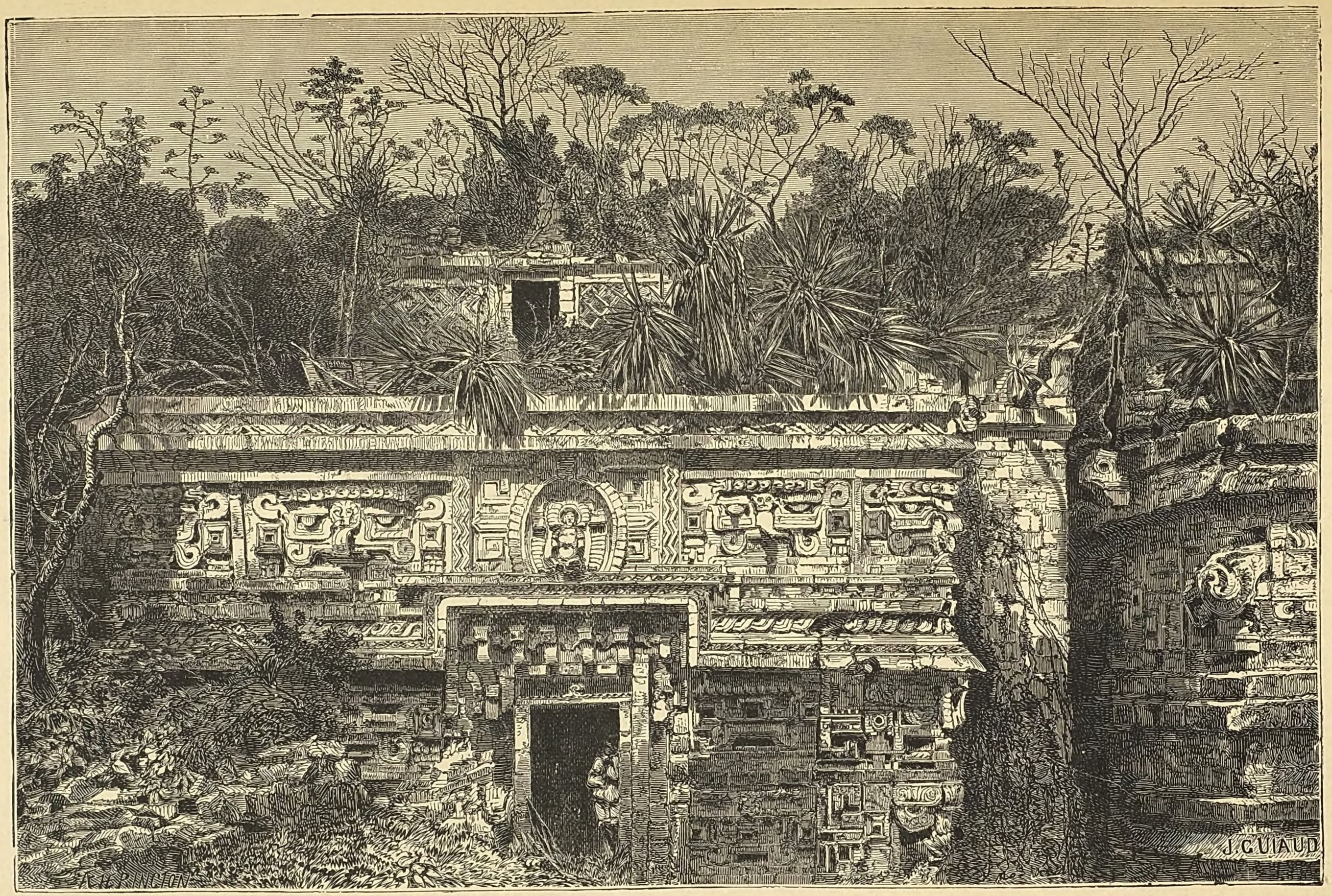


North Façade of the Nuns' Palace. Chi-Chen.

itself is made of large blocks of limestone set in a mortar as durable as the stone itself. The north façade of the same building is represented above.

A few rods to the south of the Palace of the Nuns is a structure which has been called *La Carcel*, "the Prison," (page 309). It stands on a platform of masonry, of which the angles and sides were beautifully laid with immense stones, lessening in size towards the top. This building is surrounded with ruins and overgrown with rank grass and vines, and its level summit is covered with a deep soil on which trees and grass grow luxuriantly.

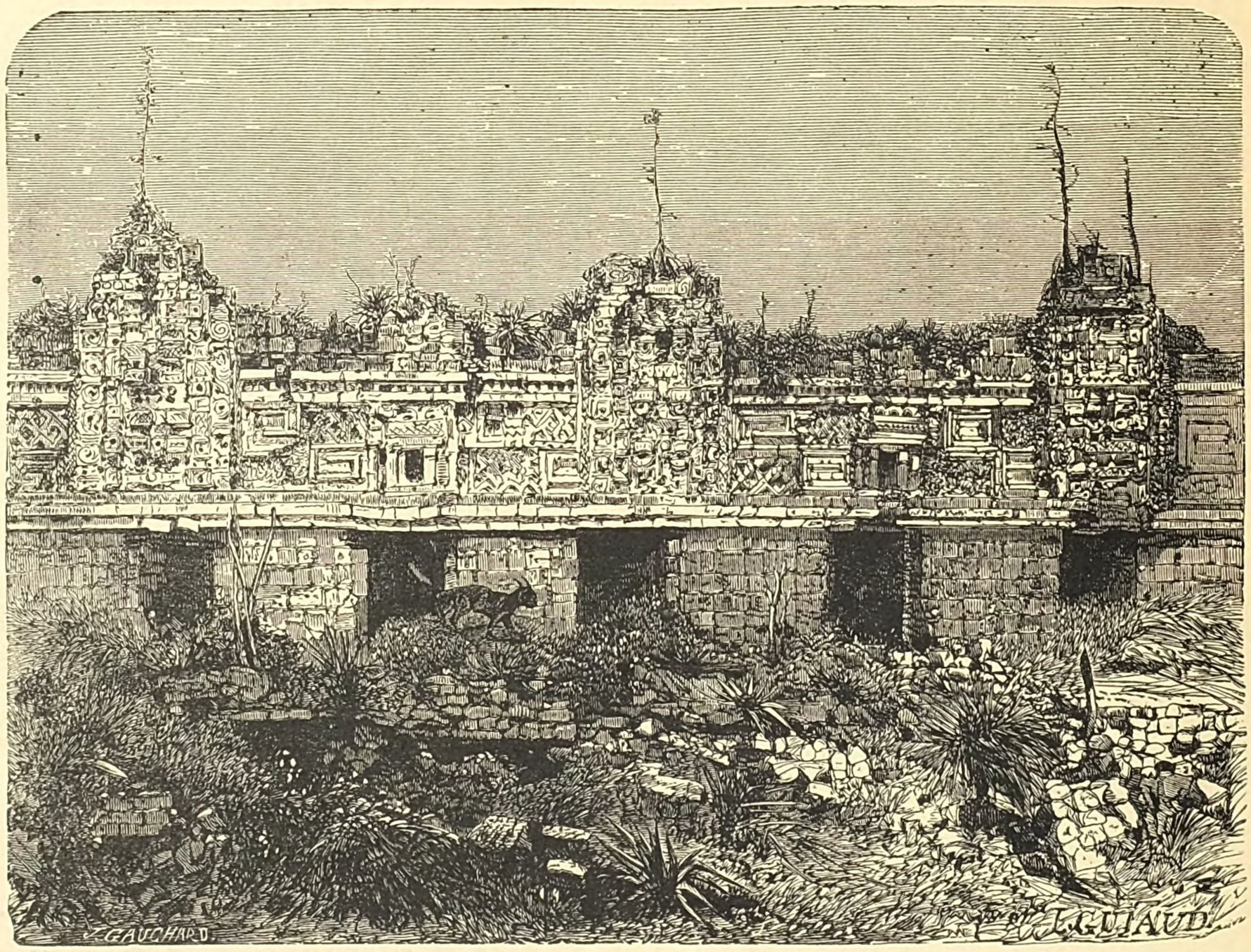
A few miles to the east of Chi-Chen are the ruins of Uxmal. The principal



PALACE OF THE NUNS. CHI-CHEN.

building is the Governor's House, a vast and splendid pile of ruins, standing upon a platform five hundred feet long and four hundred and fifteen broad. The building itself is two hundred and seventy feet in length, eighty-two in width, and thirty in height. The whole building is plain (unlike those of Chi-Chen) from base to mouldings, which run through the centre over the doorways; above which to the top are ornaments and sculptured work in great profusion, and of the most rich and strange workmanship.

The façade (page 307) presents the most remarkable elegance and finish; all



North Façade of the Nuns' House. Uxmal.

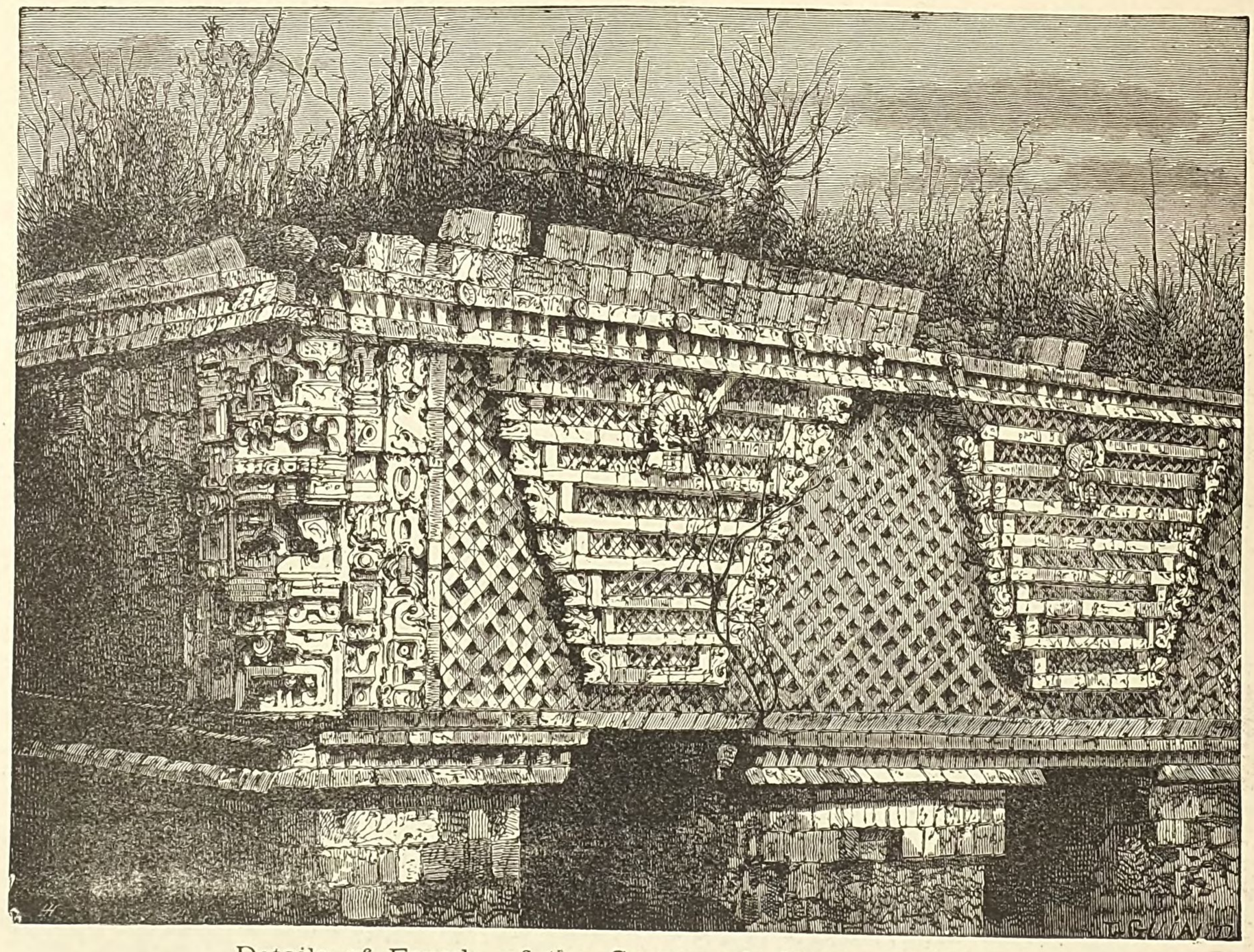
the stone work is as sharp in the angles as if cut with a knife, and the mouldings have an admirable freedom of design and accuracy of detail.

The extensive remains a few rods distant from the Governor's House, in a northerly direction, are designated by explorers the Nuns' House. It comprises four great ranges of buildings, placed on the sides of a quadrangular terrace, measuring about eleven hundred feet around, and varying in height from fifteen to twenty-four feet. The northern range has rooms and corridors, the walls and pillars of which are still remaining. This range has a wide terrace in front, and commands a view of the whole group of buildings. The front wall has five doorways, the lintels and sides of which have fallen in and filled the interior with their debris. About a third of

LA CARCEL. CHI-CHEN

the ornaments upon this façade remain, and give evidence of great power in combination, and extraordinary skill in the use of materials.

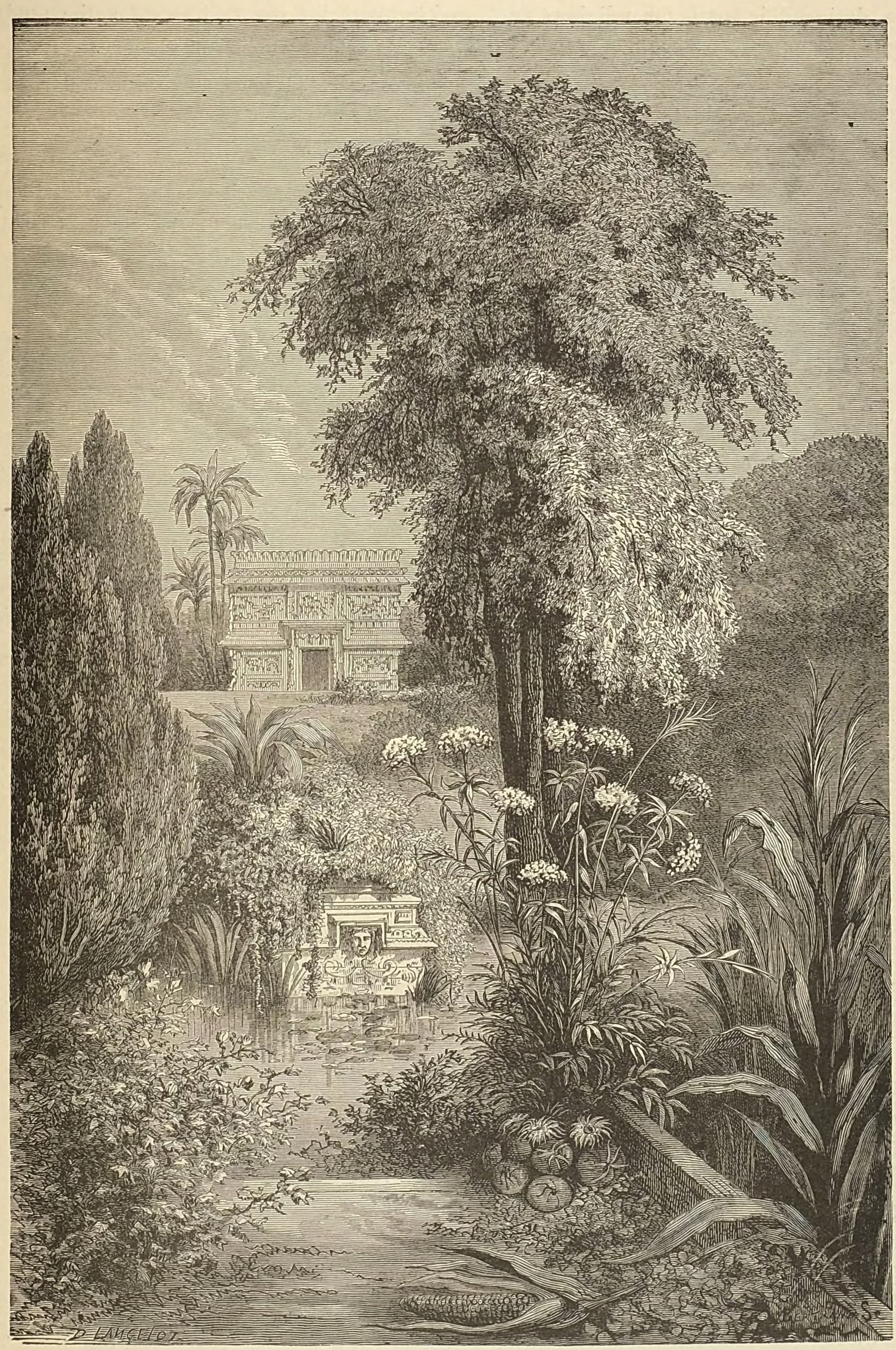
"Three questions occur to the reader," says Mr. Norman, who visited this region in 1841, and to whom we are indebted for details given above: "first, By whom were these ruins built? second, When were they built? and third, For what purpose?" And, after ascribing the work to certain Indian races, who had attained a high degree of civilization, and perished many centuries ago, he remarks: "Whatever diversity of origin may have existed among the races of Indians whose remains are the burden of our speculations, one thing is certain, that the builders of Chi-Chen and Uxmal excelled in the mechanic and the fine arts. It is also pretty obvious



Details of Façade of the Governor's House at Uxmal.

that Chi-Chen and the other cities of Yucatan were built by a nation of slaves. They were monuments raised to the glory of the few at the expense of the thousands."

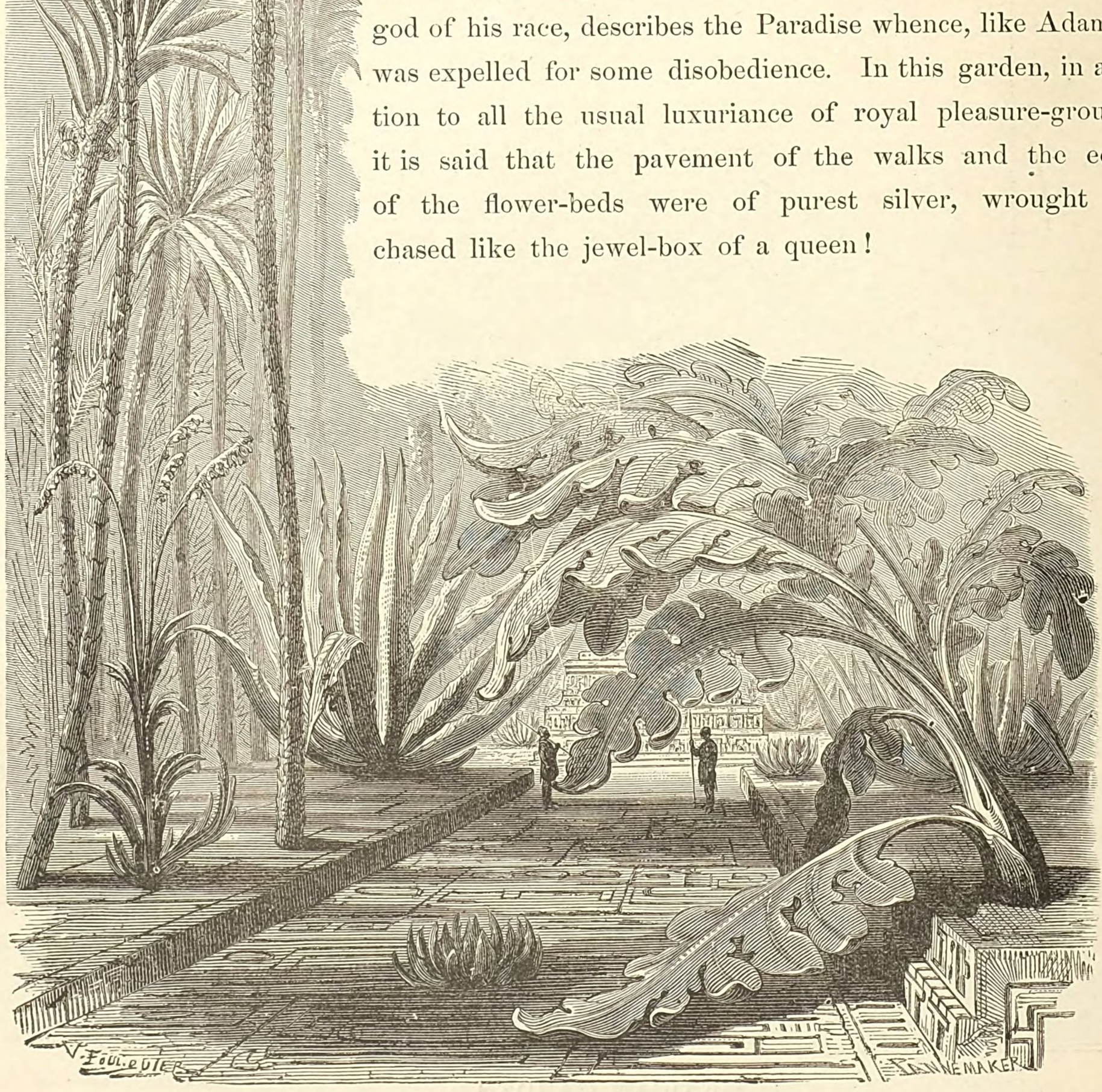
In respect to the date of their erection, Mr. Norman entertains no doubt that the American ruins belong to the remotest period, and are contemporary with those of Thebes and Tadmor. Evidently the city of Chi-Chen was an antiquity when the foundations of the Parthenon at Athens, and the Cloaca Maxima at Rome, were laid; and in reply to his third question, he adds the supposition that these structures



MEXICAN GARDEN.

were designed in part for religious uses, and in part for observatories for the study of the heavenly bodies; also it may be true that, like the pyramids of Egypt, they were designed as burial places for the royal and sacerdotal rulers of the land.

On pages 311 and 312 our artist has sought to restore the surroundings of floral luxuriance amid which these exquisite buildings may have stood in the days of their pristine splendor. The palace was not complete without its garden, and not only was this garden filled with superb trees and flowering plants in almost endless variety, but it contained fish-ponds and aviaries, and enclosures filled with graceful creatures of the wood, adding all the charm of life and motion to the magnificence of the inanimate world. The Mexican legend which tells of Quetzacoatl, the demi-god of his race, describes the Paradise whence, like Adam, he was expelled for some disobedience. In this garden, in addition to all the usual luxuriance of royal pleasure-grounds, it is said that the pavement of the walks and the edges of the flower-beds were of purest silver, wrought and chased like the jewel-box of a queen!



CUBA.

FROM Sisal to Havana is one of the most charming voyages the traveller can make. It is impossible to describe the beauty of nights upon the Gulf of Mexico. The moonlight, the serene and fathomless azure of the sky, the brilliant stars, the faint, feathery clouds, and the soft air warm with perpetual summer, render every moment a delight.

Arriving outside too late to enter the narrows, we await sunrise. Rising and falling on the long swell of the Gulf, we watch the daylight breaking over the purple slopes, barren enough, save where some planter's house nestles in dark-green groves of royal palm. From the distant mountain ranges to the surf-beaten rocks, the colors change from gray to blue, purple, and gold, as the dawn changes to daylight. The entrance of the bay is pleasing but not impressive. There is nothing grand in the low scrubby hill on your left, as you enter where the famous forts, El Moro and Cabañas, are bristling with cannon. The city on your right, lying on a level patch of land between the bay and the open sea, looks gay and sunny with its quaintly painted houses, — green, red, blue, and yellow, — and its multitude of church domes and steeples in every variety of questionable style and taste.

The streets are built to suit the heat of the country, very narrow, paved with large stones, and bordered by grim-looking stone houses seldom more than two stories high. The footways are usually very narrow, about two feet in width, so that two pedestrians can scarcely pass each other, while the crowd of cabs and other vehicles, driven at full speed, renders the roadway a scene of indescribable confusion. Many of the streets are shaded by awnings stretched across from house to house, so that the traveller drives along under a sort of extended tent, not unpleasant in the heat of the day.

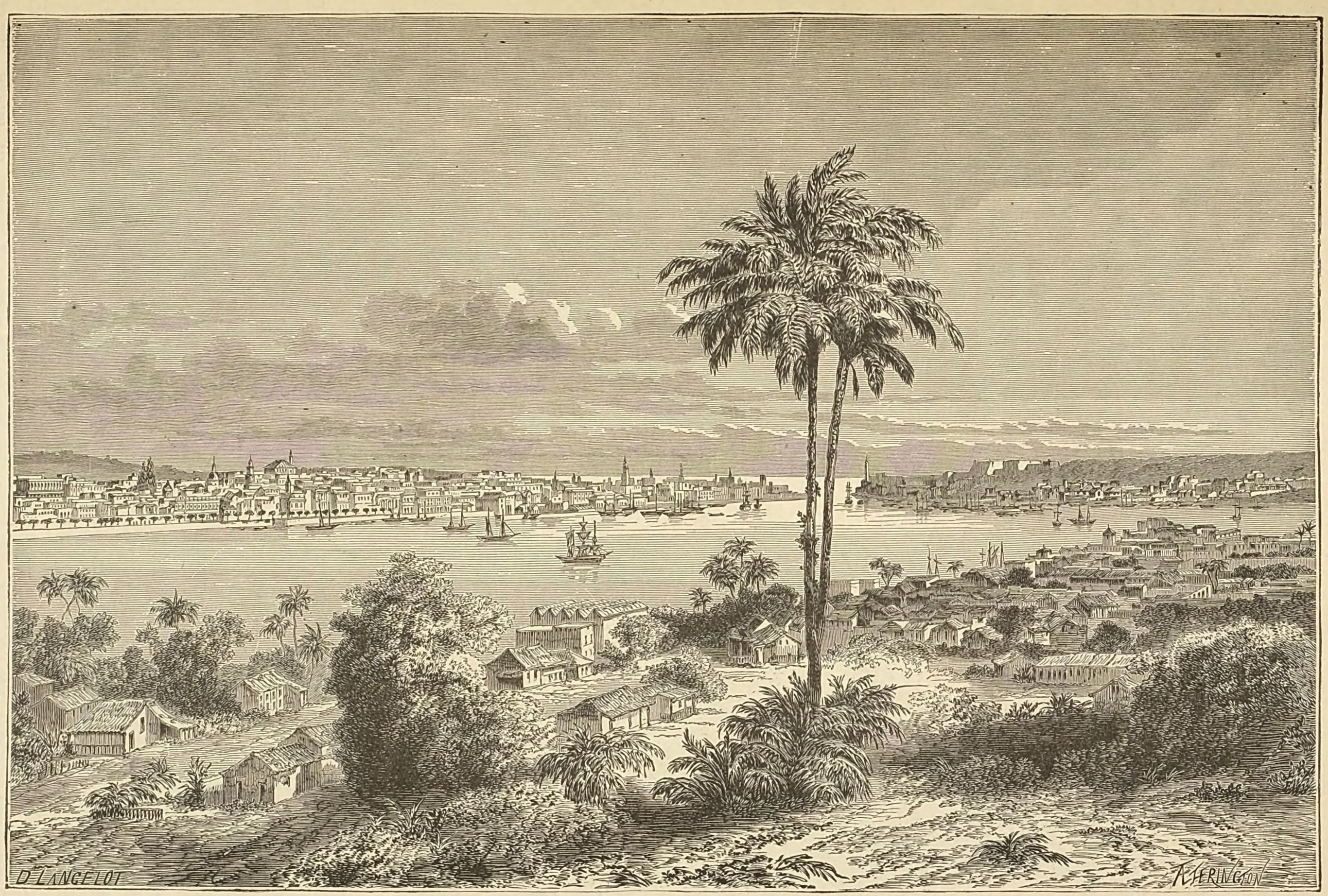
From the labyrinth of streets composing the old town, you emerge into the new town, which has been laid out since the demolition of the ancient line of fortifica-

tions. These streets are wider, and the houses are built higher, than in the old portion of the city nearer the harbor.

The public gardens and squares of Havana are carefully tended; they are well stocked with flowers, dense shady trees, and royal palms, and are embellished with fountains, the sight and sound of which are delightfully refreshing in such a climate. The Captain-General's country-seat, near the outskirts of the town, is surrounded by

Avenue of Palms.

beautiful, though somewhat neglected gardens. The avenues of stately royal palm, cocoas, mangoes, and other tropical fruits, are remarkably fine, and a labyrinth with hedges of the red and crimson hibiscus presents a mass of color of wonderfully gorgeous effect. Returning, we follow the long street which forms the suburb called the Cerro, lined with the marble-porticoed villas of the Cuban aristocracy. In style



HAVANA.

these villas are much alike, built close to the dusty road, with marble pillars supporting the roof, which projects over the wide veranda. A large entrance-hall, strange to say, includes also the coach-house, reception-rooms, and billiard-rooms, all on the same floor, the latter rooms facing the garden, which stretches back from each villa. The floors are of white marble or colored tiles, as are also the walls, while the furniture consists of a few arm-chairs, rocking-chairs, and a table, all open to view through the unglazed windows.

Three or four days suffice to exhaust the sights and curiosities of Havana, and the traveller is glad to exchange the noise and bad air of the city for the charming variety of a day at some one of the great sugar estates which make Cuba famous all the world over.

Passing the swampy head of the Bay of Havana covered with low mangrove trees, we cross an undulating country bare and destitute of timber, but traversed by good roads in the immediate neighborhood of the capital, and sprinkled with farm-houses. As we advance the scenery improves, the green mountain ridges on either hand delighting our eyes. Rising abruptly to a height of some fourteen hundred feet, these ridges are clothed from base to summit with low green scrub, above which towers the gray stem and drab foliage of the royal palm, standing up clear against the sky-line on the rocky ridge.

Sometimes we cross valleys of great beauty, through which wind streams whose banks are overhung by the graceful bamboo and flowering shrubs; sometimes we plunge into the tangled growth of natural forests (see page 317) which still cover a large portion of the island. Here the wild vine, stretching from tree to tree, the crimson and white convolvulus, covering the shrubs with a brilliant mass of blossom, and many other creeping and climbing plants, form a mass of low vegetable growth impenetrable to man, save where he cuts his way with knife and hatchet. Out of this low growth rise to great height palm and laurel, and hoary old cotton-trees with gorgeously colored foliage.

The *hacienda*, or planter's country-house, stands in a grove of cocoa-nut palms, bananas, and orange-trees, and is approached by a perfectly straight avenue, bordered by double rows of the royal palm, planted within a few feet of one another, on either hand (page 314). The buildings themselves are plain and very simple. There is no display nor attempt at what we call "comfort." In general, in the island of Cuba no man lives in the country for his own pleasure: the manufactory is the main point, and the residence of the proprietor but a vastly inferior consideration.

At the time when the cultivation of coffee was the chief industry, the country presented a widely different appearance. The *cafetal*, or coffee plantation, was like a vast park with wide avenues and an enormous growth of trees of every variety, under whose shadow grew the coffee-plant to a height of five or six feet. It was

NATURAL FOREST. CUBA.

horticulture, says Mr. Dana, on the most extensive scale imaginable. But after twenty years or more, the Cuban planters learned that Brazil, the states of Central America, and the more southern of the West India Islands, could produce coffee to far better advantage. The successive hurricanes of 1843 and 1845, joined to the colonial system of the metropolis, put an end to the coffee plantations of Cuba. The deserted estates were devoted to the culture of the cane, and gradually, in the west and north, and then more and more in the eastern and southern portions of the island, the charming *cafetals* were laid waste, the trees cut down, the plough passed through the avenues and paths, and the denuded country became a sea of canes.

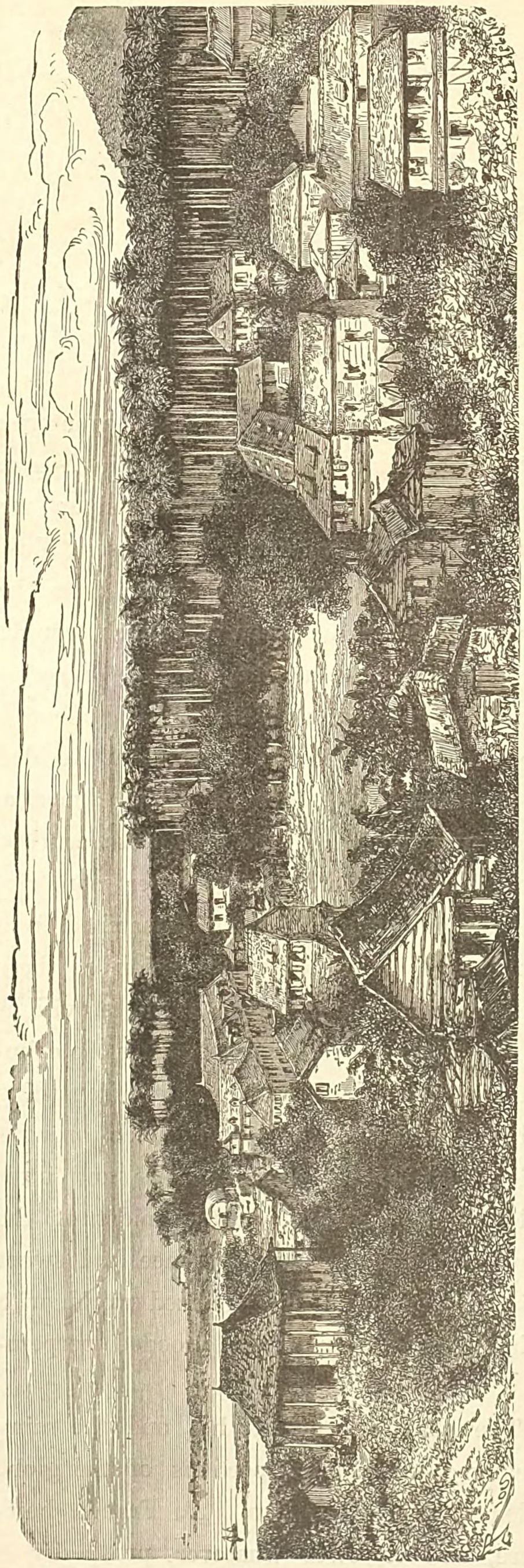
A sugar plantation is neither a garden nor an orchard. It is no longer the beautiful home which the *cafetal* was. The proprietor's family live in the suburbs of Havana or Matanzas, or even seek a more distant abode in some one of the great cities of the United States.

GUIANA AND BRAZIL.

GUIANA is the name applied to that extensive region of equatorial America lying between the Orinoco, the Amazon, the Rio Negro, and the ocean. This great territory has been divided among four nations — Brazil, France, Holland, and England. We present illustrations of French Guiana, — otherwise known as Cayenne, from the name of its capital, — because this colony has been very much brought before the notice of the civilized world as the place of deportation of French criminals, and notably those banished for political offences. Soon after Canada was lost to France, the French government decided to establish colonies of great size and importance in South America, by way of compensation: about the middle of the eighteenth century an attempt was made in Guiana, but no enterprise was ever more disastrous or ill managed. Ten thousand emigrants were dispatched from France, chiefly from Alsace and Lorraine, to take possession of these vast solitudes; but instead of sending out in advance the provisions and materials necessary for the colonists, — instead of preparing the country in a degree for their reception, — instead of having careful regard to the time of year and the weather best suited for them, the same fleet which brought this unhappy crowd brought all their supplies, and landed them, in dire and utter confusion, on an island ten leagues to windward of Cayenne, in the midst of the rainy season. In an incredibly short space of time famine and pestilence had swept them from the earth, and the history of this disaster filled the civilized world with the impression that this region was but a lazar-house over which brooded perpetually the shadow of death.

Such an impression is, however, unjust. The climate is indeed hot, and the rainy season malarious, but it is no worse than many other tropical portions of the globe which have been made available for the residence of civilized man. To France, however, it is a penal colony and nothing more, and it owes whatever prosperity it

possesses to the presence of the convicts and of the *personnel* accompanying them. Were transportation to cease and be transferred to another colony, it would be a death-blow to French Guiana, and a few years would find the primeval forest again taking possession of a domain which three centuries have hardly sufficed to wrest from it.



Cayenne.

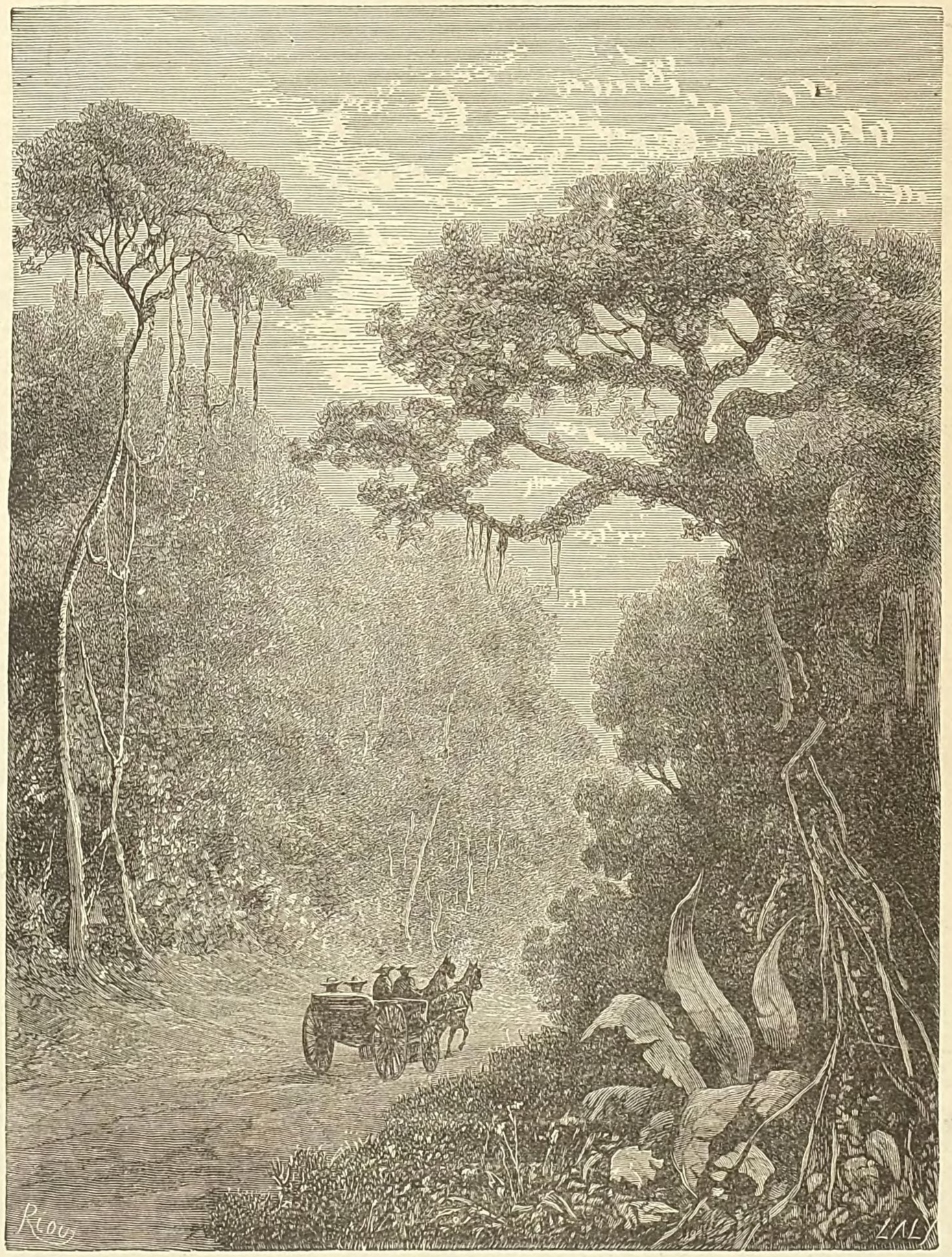
The city of Cayenne, a view of which is here given, is situated on the sea-shore, and, lying in a kind of delta, is often called an island. It is but a small town, and contains only wooden houses; it is surrounded with a swampy moat, and poor ramparts, which form a kind of irregular hexagon, commanded by a fort whose natural position is all that gives it importance.

The only buildings of consequence in the town are the Government House and the Jesuit Mission (page 321). The latter presents a charming appearance, the buildings being entirely surrounded by a beautiful orange grove and a wilderness of shrubs of every variety, which, in the season of blossom, fill the air with delicious perfume, and attract scores of humming-birds that balance in the air and fly about among the flowers like butterflies.

The chief article in furnishing a house in Cayenne or its neighborhood is the hammock. One often sees four in a room, and it is a great art to poise one's self gracefully in this airy netting. It is only justice to the Creoles of Cayenne to say that they possess this art in the highest degree. They sit gracefully, or, rather, half recline, swinging like a bird on a bough, an occasional tap with one foot on

JESUIT MISSION.

the floor keeping the motion up without interruption. The hammock serves also as a carriage, and in this use it is quite indispensable. Near the city there are a few good roads, it is true, one of which we give below; but at the distance of a few miles inland, nothing but the rudest paths through the forest are found. To traverse these, a hammock is slung from an enormous bamboo pole, and the traveller,



Road near Cayenne.

lying comfortably at full length, is borne along by two stalwart negroes who support the pole upon their shoulders.

The country is full of rivers and small streams, but navigation is everywhere impeded by waterfalls, which, however they may add to the picturesqueness of the country (see page 323), are to be regretted from an economic point of view. At the same time, the native wealth of Guiana is so great that it is impossible to believe

CASCADE ON THE ROSOTA.

it will remain forever so nearly a wilderness as it now is. Cotton, indigo, and coffee grow here to the best advantage; there is great variety of spices, also pepper, especially of the kind known as Cayenne; pine-apples are the finest in the world, and many varieties of fruit unknown to more temperate climes. The fine woods used for furniture abound: mahogany, violet-wood, satin-wood, rosewood, are as common as the pine-tree in New Hampshire.

Nearly the same is true of the great region of the Rio Negro, lying south of the Guianas. This affluent of the Amazon is twelve hundred miles in length, and by means of the Cassiquiari, one of its tributaries, makes a connection between the Amazon and the Orinoco.

Its waters, which seem in their mass as black as ink, and which really have a

Falls of the Rio Negro.

distinct brown color quite perceptible in a glass, make a strange contrast to the yellow flood of the Amazon. At Barra, its point of junction with the Amazon, it is a mile and a half wide; further up it widens considerably, making deep bays ten or twelve miles across. Further on, again, it separates into several channels divided by innumerable islands, the total width being not less than twenty miles, and for several hundred miles of its course the two banks of the river cannot be seen at once.

Ascending the river still further we come to its passage through the Sierra of Curicuriari, and here its aspect and that of the country changes entirely. Irregular

conical masses of granite rise in every direction, with numerous bare precipices where veins and masses of quartz shine white as silver. The rapids begin and continue for a distance of forty miles. Small rocky islands and bare masses of rock fill the river. The stream flows rapidly round projecting points, and the main channel is full of eddies and foam. Beds and ledges of rock cross the entire width of the river, and through their chasms the water rushes with terrific force, forming dangerous whirlpools below.

View on the Rio Negro.

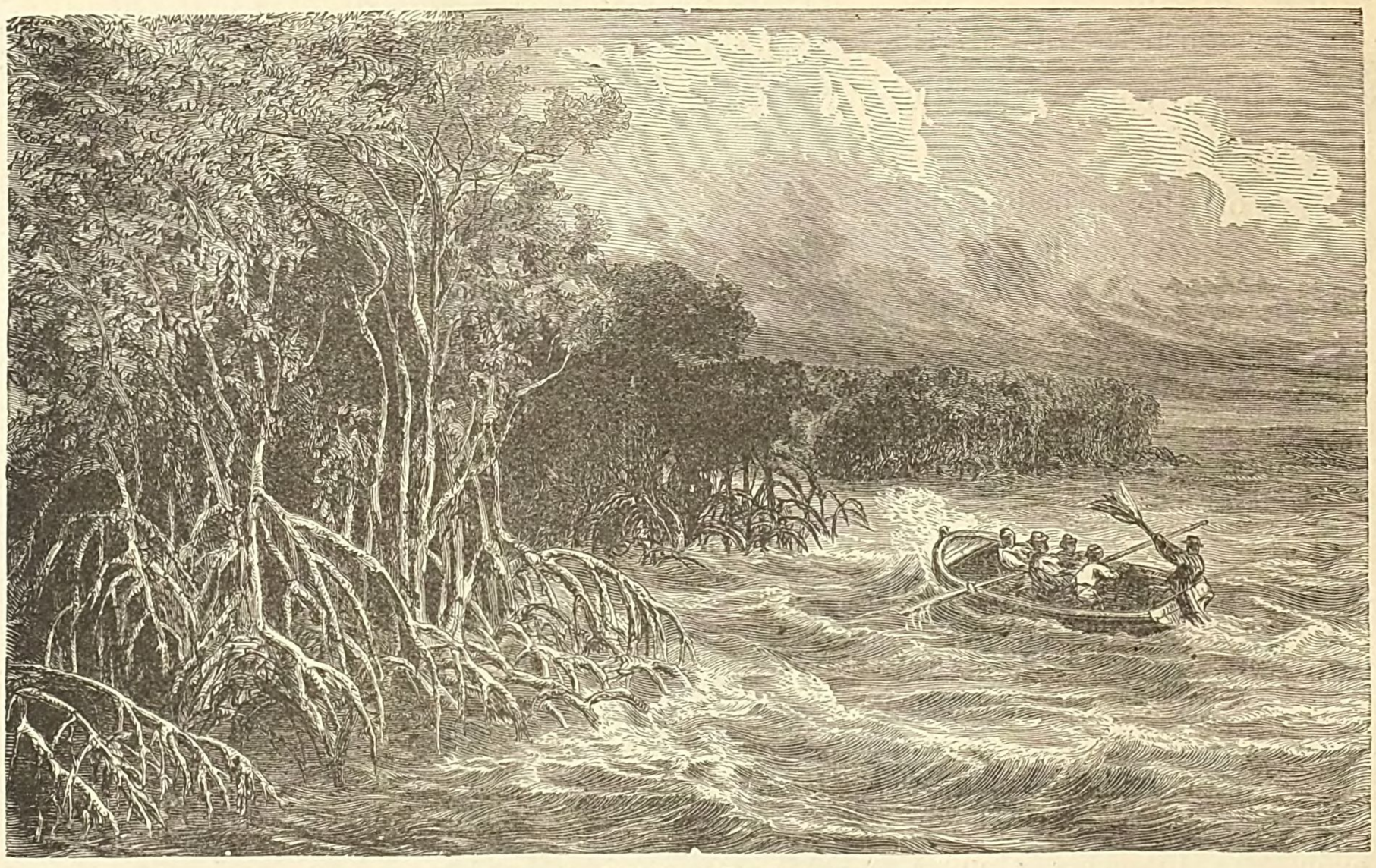
Most of the principal falls and rapids in this long series have names. At Sāo Gabriel are the principal falls. Here an island in the middle of the river divides it into two channels, along each of which rolls a tremendous flood of water down an incline formed of submerged rocks.

Above this region, the Rio Negro again spreads out calm and placid, and with water black as ever. At intervals along the shore are villages of thatched mud huts, sometimes whitewashed, sometimes of their native earth color. Back of these lies the illimitable virgin forest. A little way into this forest the road leads: at first a tolerable path, it soon becomes a mere track a few inches wide, winding among thorny creepers, and over deep beds of decaying leaves. Gigantic buttress-trees, tall, fluted stems, strange palms, and elegant tree-ferns abound on every side. Hard roots rise up in the path, swamp and mud alternate with rocks. In short, it is a true wilderness.

All along the coast of Brazil countless streams fall into the ocean, and the tide fights back the current of the stream, as at the mouth of the Sagnassou (page 326); but till the traveller approaches Rio Janeiro there is really little that tempts him to explore.

Superb, however, is the Brazilian capital, as one approaches it by sea, — great rocky masses rising on the right and left, like a vast gateway to the harbor. On the southern side is the great Pão de Açucar, the Sugar Loaf, the well-known landmark for ships. Entering through this portal we find ourselves in a great amphitheatre, where the water is like a tranquil inland lake: flower-clad islands lie about us, and in the background rises a well-wooded chain of hills.

Drawing nearer the city, its white houses and churches and forts make a charming contrast with the emerald verdure of the shore and the dark blue of the water. Near the sea is the Paseo Publico, or public promenade (page 328); it is a small garden, surrounded with walls and protected from the sea by a perpendicular quay of



Mouth of the Sagnassou.

hewn stone. Its shady avenues of mangoes, bread-fruit tree, and the rose-apple, are most attractive in the evening, when the cool sea-breeze tempers the extreme heat of the day.

A favorite excursion alike for visitors and residents at Rio is the drive to the Botanic Garden, about eight miles from the city. The place is beautiful, as any place must be in the tropics that is called a garden, but it is somewhat neglected and overgrown. The palm avenue represented on the opposite page is its most characteristic feature. "I wish it were possible," says Professor Agassiz, "to give in words the faintest idea of the architectural beauty of this colonnade of palms, with their green crowns meeting to form the roof. Straight, firm, and smooth as stone columns,

AVENUE OF PALMS IN THE BOTANIC GARDEN.

a dim vision of colonnades in some ancient Egyptian temple rises to the imagination, as one looks down the long vista."

This palm is the *Oreodoxa oleracea*, and in the case referred to has reached a height of eighty feet. Many other varieties exist in Brazil, their diversity being much greater even than that of our oaks, so that it would require a comprehensive comparison with a majority of our forest trees to match the differences they exhibit among themselves. In the opinion of the distinguished naturalist above quoted, there

Paseo Publico.

are four essentially different forms among palms: the tall ones, with a slender and erect stem, terminating with a crown of long, feathery leaves, or with broad fan-shaped leaves; the bushy ones, whose leaves rise apparently in tufts from the ground, the stem remaining hidden under the foliage; the brush-like ones, with a small stem and a few rather large leaves; and, finally, the winding, creeping, slender species.

To the imagination, however, there is but one palm-tree, and that has the stately shaft and feathery top of the palms of the Botanic Garden in Rio.

PERU.

THE old city of the Incas, Cuzco, the ancient Peruvian capital, lies at the astonishing height of eleven thousand three hundred and eighty feet above the level of the sea; that is to say, three thousand seven hundred and seventy feet higher than the hospice of St. Bernard in Switzerland. Yet the latter is in a region of perpetual snow, while Cuzco stands in a beautiful valley covered with fields of barley and lucern, and on its level, both east and west, lie some of the finest forests of the mid-sierra, and some of the most fertile farming land in all the great continent of South America.

We shall present several views obtained on a journey to the east of Cuzco, and

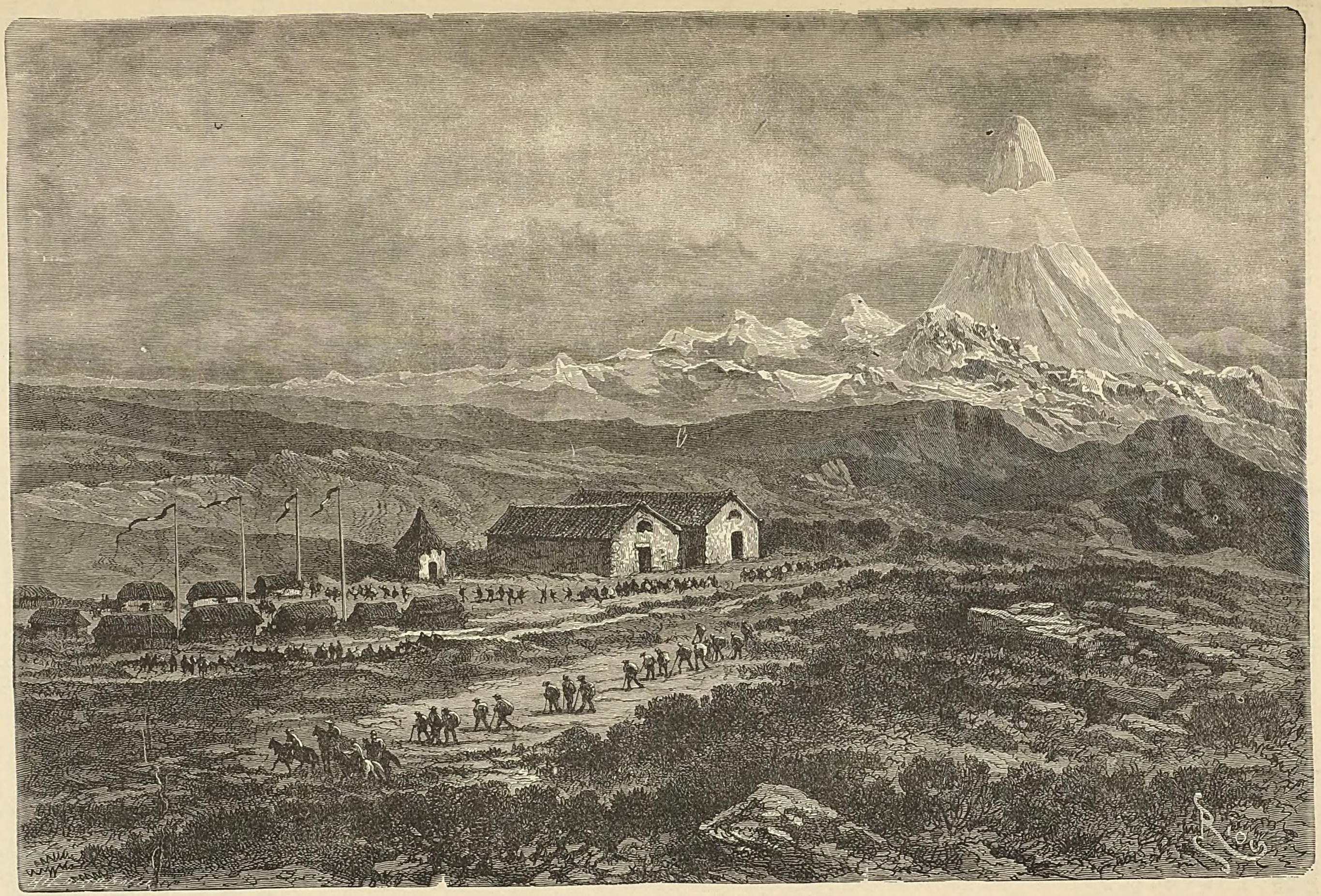
afterwards another series representing an excursion down the valley of the Apurimac, a region lying west of that city.

Let us imagine ourselves starting from Cuzco in the early morning, with a large cavalcade and a numerous train of pack-mules, carrying all the necessary outfit for such an expedition. A day's journey brings us to the village of Huaro; and on the following morning, leaving the village, we desert the main road, which keeps along the higher ground up the valley of the Huilcanota, through the Pass of the Sierra, and so on to Titicaca, the great mountain-lake of Peru. Our path descends by a

Mountain near Huaro.

succession of zigzags towards the bottom of the ravine in which flows the little stream. The ravine itself, strewn with enormous rocks and a multitude of small, round pebbles, is about half a mile in width. Through it the river runs, in the dry season a mere thread of silver, but at the time when the snows melt, transformed into a mad torrent, it fills the whole width of the ravine, carrying in its muddy current huge rocks detached from the mountain side, and paving-stones from the villages through which it passes.

Reaching the opposite bank, our cavalcade prepares itself to climb the huge mountain of clay-slate which bars the way. This enormous mass from base to summit



HACIENDA OF LAURAMARCA.

presents the usual stratification of slate (see page 330), varying in color from bluish gray to a shade almost black, the surface in many places having a vitrified appearance, as if it had been subjected to intense heat. Steep and narrow footpaths, invisible at a distance, so hidden are they by the salient or retreating angles of the stratification, lead to the summit; and both men and horses require often to rest, in the long and wearisome ascent, to accustom the lungs to the extremely rarefied air of this great height.

Three hours' steady climbing brings us to the top, and we find ourselves upon a

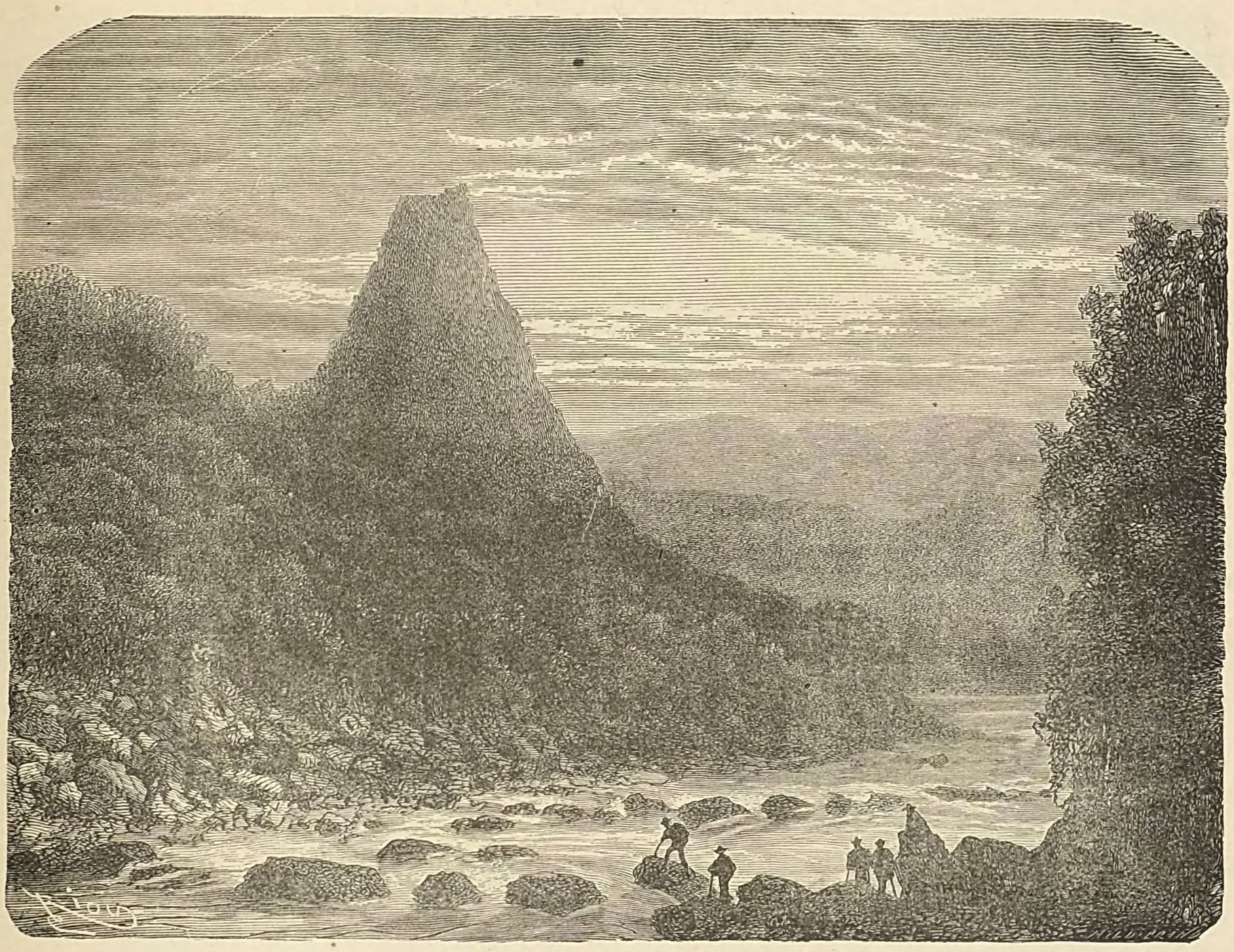
The Gate of the Cordilleras.

vast plateau, which stretches away to the horizon like a limitless plain. No road crosses this region, but the muleteers well know their way, and direct us east-southeast with the certainty of a hunting-dog following a scent, and towards night one of them cries out "Lauramarca!" It is the *hacienda*, where we are to pass the night. (See page 331.)

The high table-lands of the Peruvian Andes abound in great solitary *haciendas* like this; but Lauramarca is, or has been till lately, the most important one in all the region. A large stone building with red tile roofs, and quite a little village of Indian huts near it, surrounded by a crowd of men and animals, compose the picture as we

draw nearer, and a salute, as from myriads of tin fish-horns, welcomes the newly arrived party.

The limits of this estate are not well defined, but it extends over a great variety of soil, and by reason of the diversities in elevation, has a great variety of productions. Its plateaus, adjacent to the snow line, nourish countless herds of cattle and flocks of sheep, llamas, and the alpaca. The flesh of these animals, fresh or dried, their wool, horns, and hides, also their butter and cheese, are sent down the mountains, and sold all along the Pacific coast. On the slopes of the plateau wander thousands of



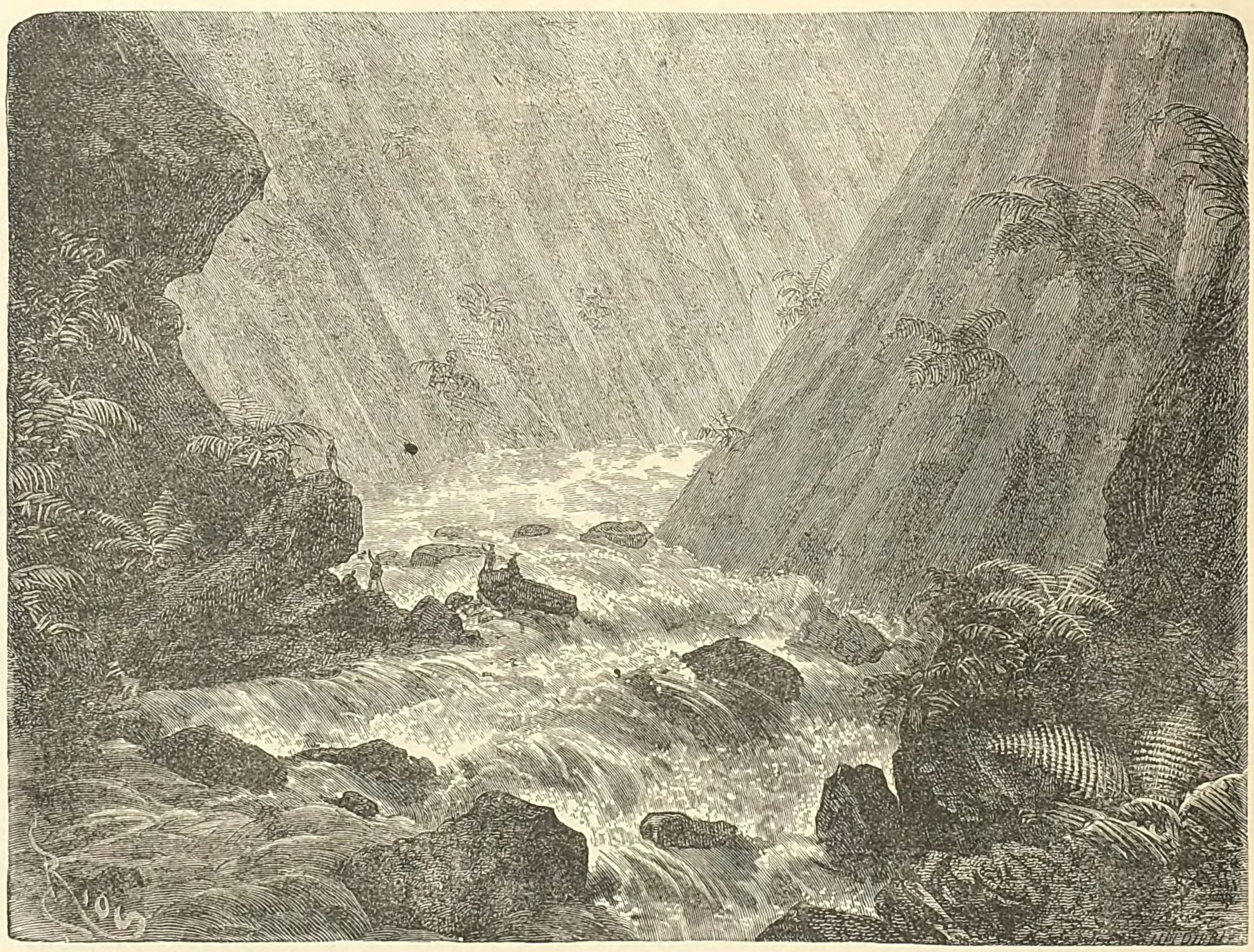
The Cerro Escopal.

half-wild horses, requiring no care save to be gathered in and branded every three years, and sold whenever their owner has need of money. Besides this, the agricultural products of the *hacienda* are very important, consisting of wheat, oats, barley, lucern, and maize, and three kinds of potatoes highly valued in the country.

Descending the eastern slope of the plateau, we arrive at the base of the Andes of Avisca. Crossing their outer rampart, through one of those gaps called in the language of the country *puncas*, or gates, a magnificent region of ice and snow appears before us (page 332). This part of the chain of Avisca offers a prodigious group of extinct volcanoes, rising one behind another in peaks and needles and crests,

in shapeless masses and abrupt descents covered with perpetual snow. Through this region, by wild and dangerous paths, we make our way a distance of ten miles, lengthened to double by the circuits of the road, out to the head-waters of the Marcopata, a region of wonderful grandeur and beauty.

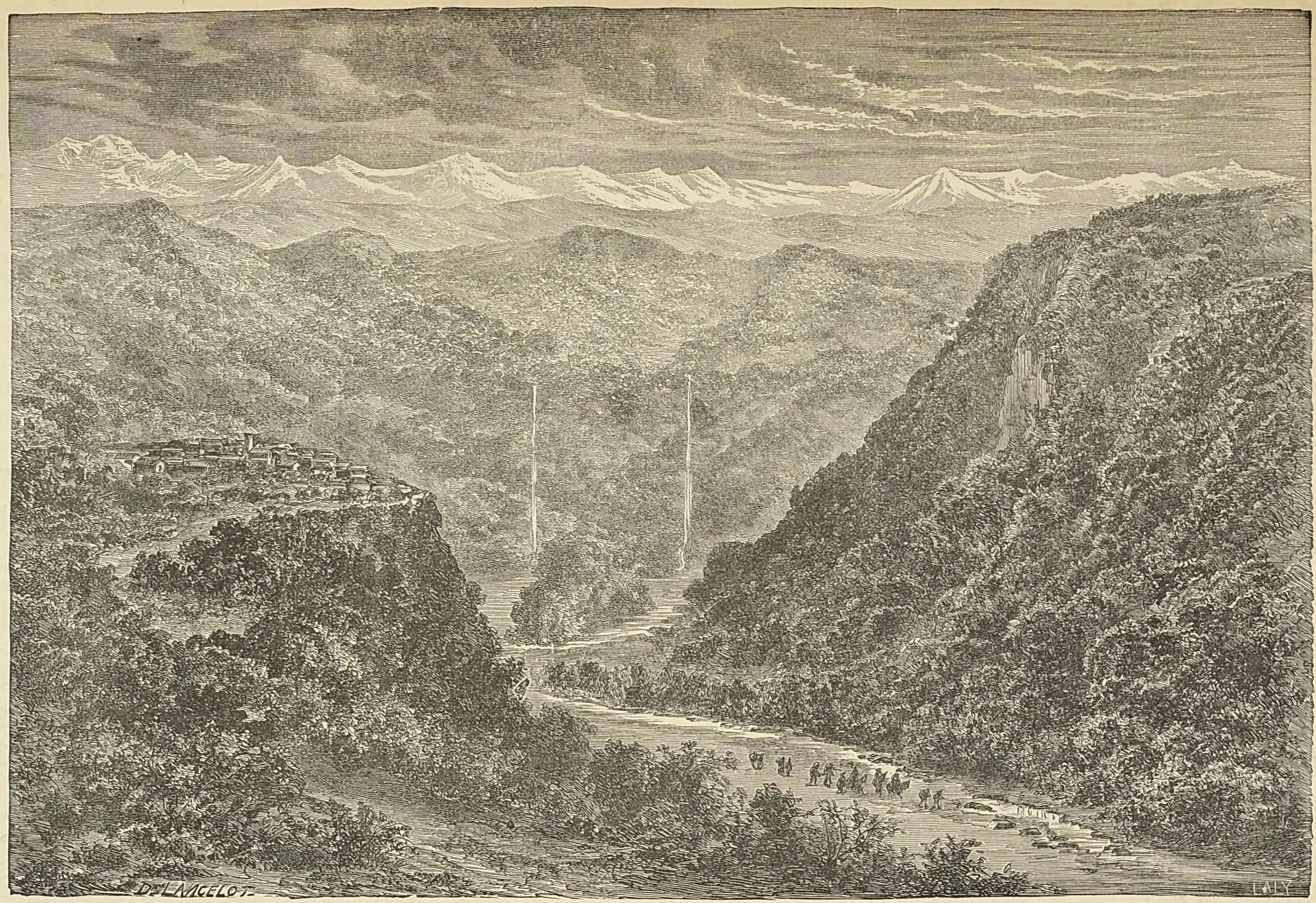
The valley here (see page 335) is not over a mile in width; all the way down it has its double row of high hills of conical outline, making a solid mountain wall for half their height, then separate and wooded to the very top, while behind them rise the snowy heights of Apu and Choquechanca, azure in their shadows, and shining



Rio Cadena.

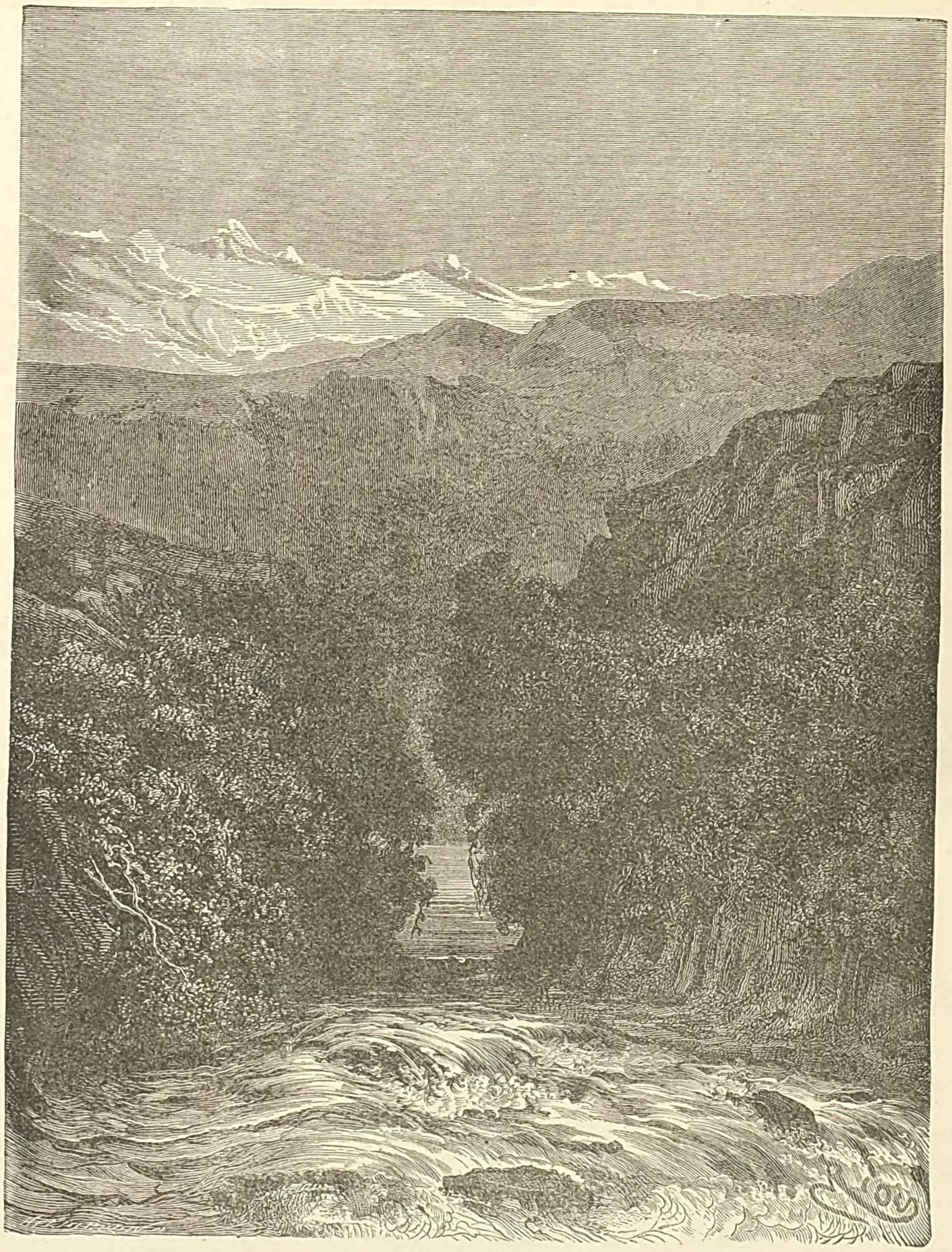
faint rose-color on the side kissed by the morning sun. Two streams, coming, one from the north-west, the other from the south-west, leap from the hillsides like silvery arrows, and directing their parallel course towards the east, meet after three miles at the foot of a hill on whose summit stands the village of Marcopata, — a hundred and ten irregularly placed huts, and a church with a square tower and a roof of thatch.

Following the valley down, at every mile some new picture charms the eye. It is, perhaps, the Cerro Escopal (see page 333), with its singular truncated cone, wooded nearly to the summit; or it is the wild dash of the mountain torrents that



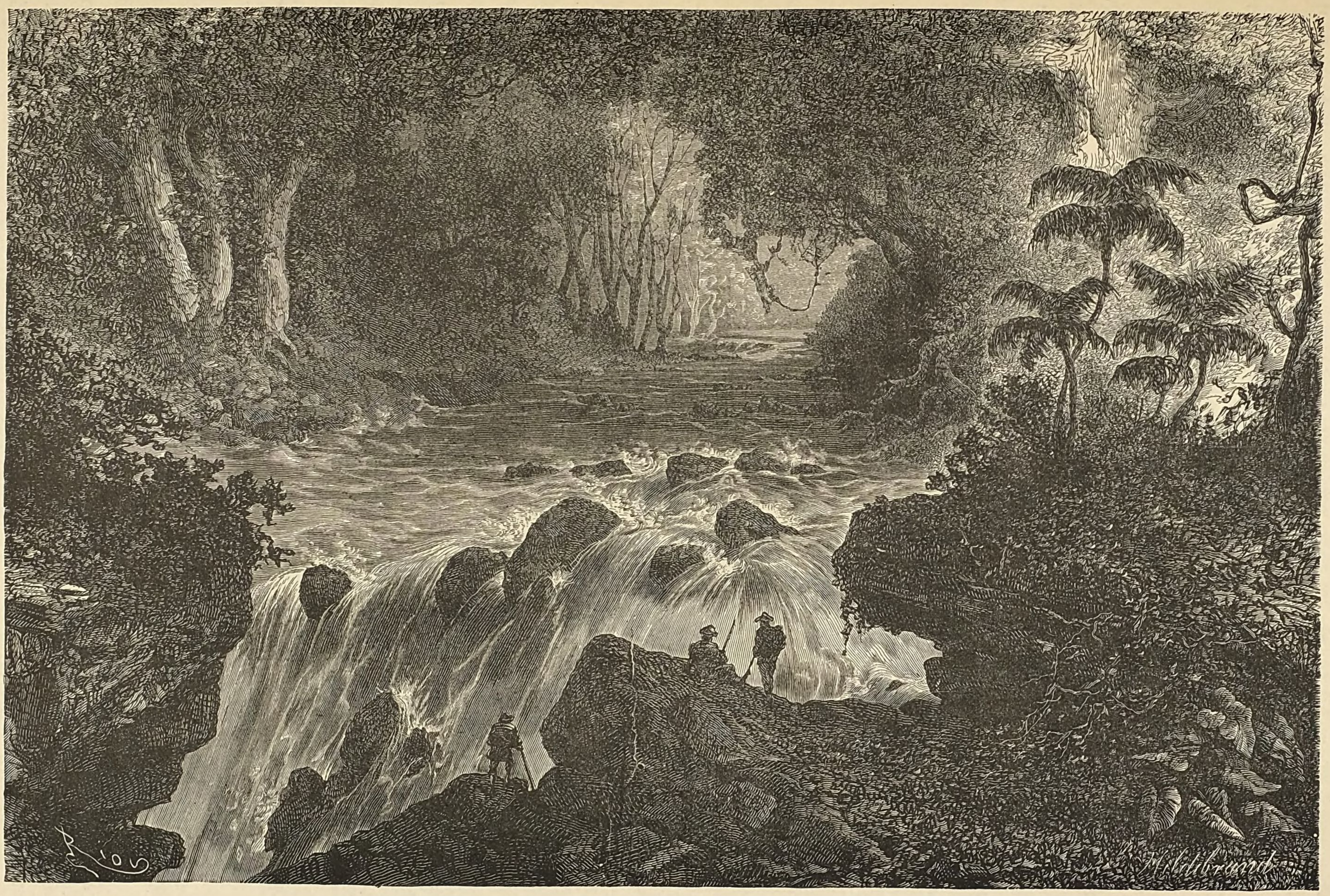
VALLEY OF THE MARCOPATA.

come down to join their waters to those of the main river, like the Cadena, the Cuchua, or the Maniri (pages 334, 336, 337) ; but ever the main stream grows wider and stronger, until we find it with broad current, fretted only by a rapid here and there, under the name of the Ccoñi, an important branch of one of the main affluents of the Amazon (page 339). In all this region, the luxuriance of vegetation and the abundance of animal and insect life surround the traveller with ever new and fas-



Rio Cuchua.

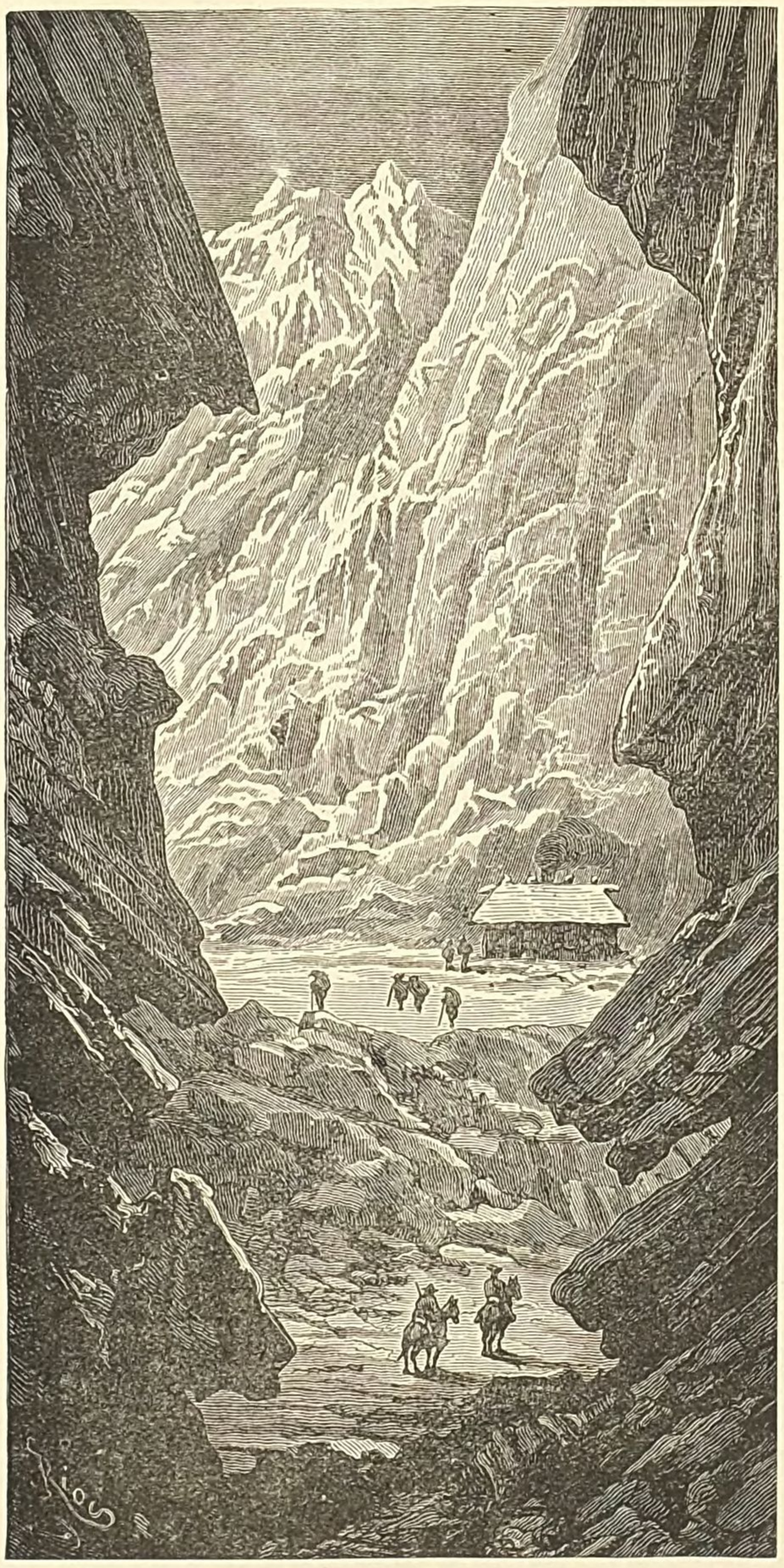
cinating variety. Colossal trees abound, and parasitic plants of incredible size and strength cling to their trunks, and hang down in great festoons from their long branches. Some of the shrubs of this country attain a growth that is truly marvellous ; one in particular, a Rhexia, which attains a height of seven or eight feet, merits the appellation of the "king of shrubs." It bears flowers of a great size, of an extremely delicate pinkish-violet tint ; its quadrangular stem is striped red and green, and its



RIO MANIRI.

five-nerved leaves, covered with a soft down, are bright green above and of a dull orange color on the under side.

Any reference, however casual, to the flora of Peru, must make mention of the Cinchona or Quinquina, as it is variously called, the tree whose bark supplies the well-known febrifuge, quinine. The date at which the medicinal virtues of this tree were discovered appears to be not far from 1636, at which time it is first mentioned by the Spanish chroniclers. To the Incas it evidently was not known, and it seems to have been first successfully used in 1638, when the Spanish viceroy's wife was cured of a fever by its administration. On her return to Spain this lady carried a large supply of Quinquina bark, and distributed it among her friends. Some years later, Jesuit missionaries, returning from South America, introduced the new remedy at Rome, and exerted themselves to extend its use throughout Italy; and France and England also received it not far from the same time. Finally, from Linnæus it received scientific classification in the family of Rubiaccæ, of which he makes it a genus by itself, with the name *Cinchona officinalis*.



Machu-Condoroma.

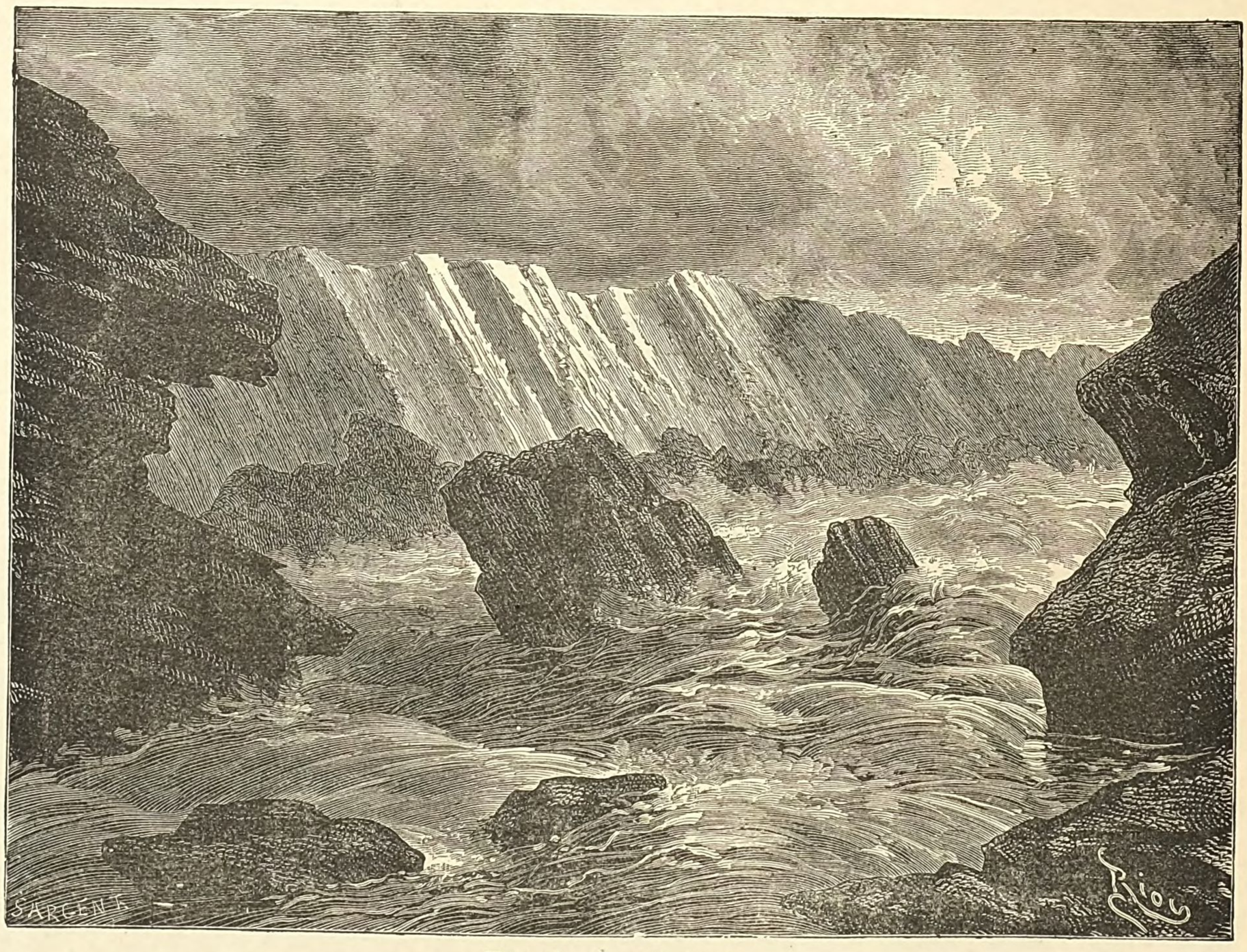
It appears that the conditions requisite for the growth of the Cinchona are elevation and irregularity of surface, heat by day and a much lower temperature by night, and a constantly moist atmosphere combined with considerable dryness of soil, all which conditions are combined on the Andean slopes, in a belt of territory two thousand miles in length and varying in width, but never exceeding two degrees.

For our western expedition in the Peruvian sierras, we return to the main highway, if so we may call it, of the valley of the Huilcanota, and follow it southward to the point where the Sierra of Huilcanota unites with, or rather disappears in, the great chain of the western Andes. All the grandeur of the region of perpetual snow reigns over the desolate post-hut of Machu-Condoroma, represented above, our first station on the western slope of the Cordillera. Two mountain masses, whose disjointed stratification, fractured, dislocated, here at an angle, there vertical, now re-

RIO CCONI.

treating, now overhanging, rise before us, representing in the foreground two huge pylons, between which we must pass. One of these masses retains a dark brick-red color, as if the central fire which originally lifted and dislocated all its strata kept it yet in a dull glow. The other, blackish and streaked with gray, blue, and a dull yellow, has an appearance of being vitrified. Through the gap which opens between these two, we behold the post-station, a low building of rough stone. From its chimney rises a thick cloud of smoke, thrown up with extreme distinctness against the snowy background of the mountains behind it.

After a few hours' rest at Machu-Condoroma, our party proceeds on its way. As



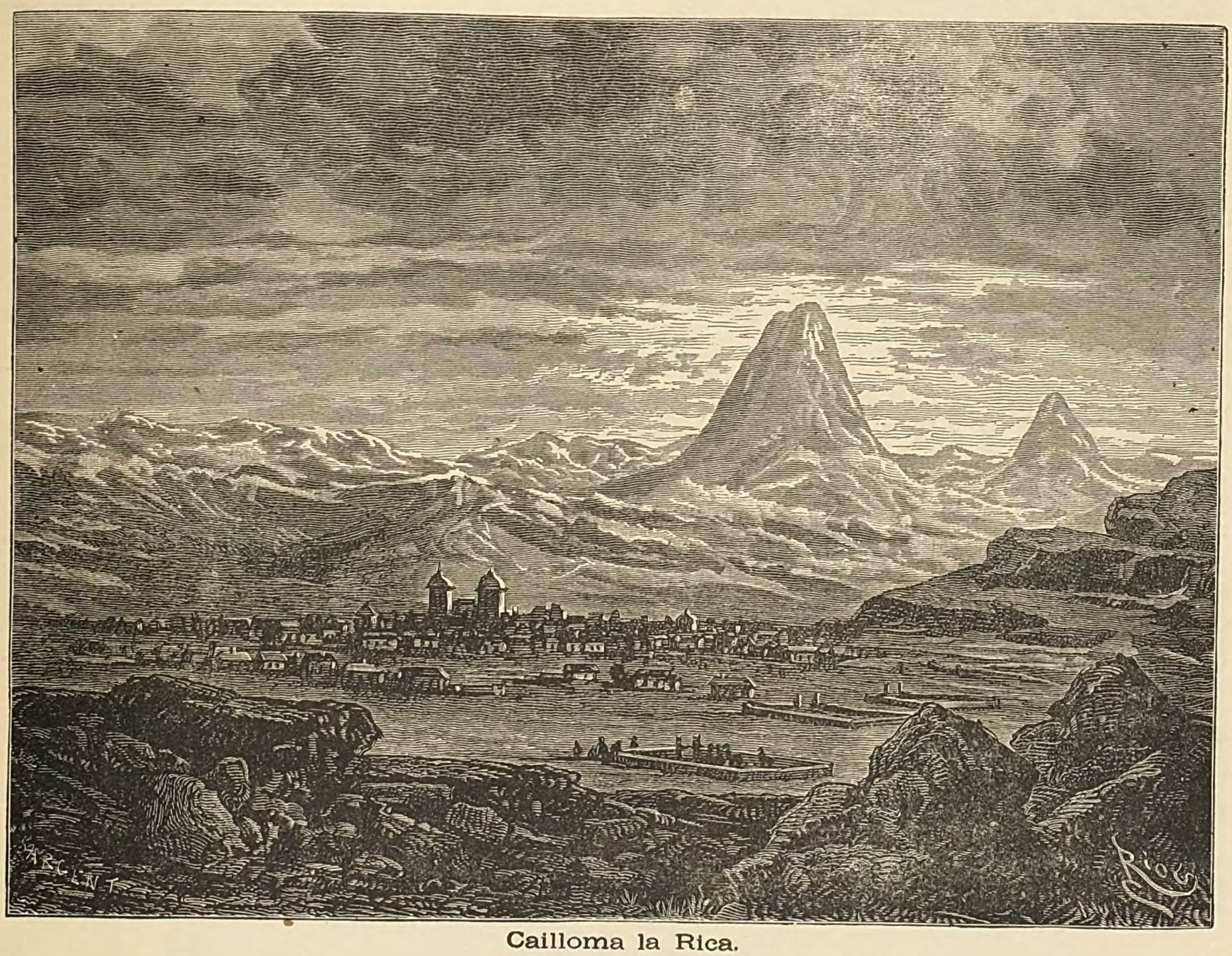
Rio de Condoroma.

the sun rises higher, the white mantle of snow thrown over everything tears away here and there, showing the color of the soil; and rivulets, which steal down from the mountain wall and run across the road, moisten the ochre and clay, and form a muddy paste in which the mules' feet slip, giving their riders no little anxiety, despite the proverbial sure-footedness of these useful beasts.

But the inconveniences of the melting snow, though great, are all forgotten at the sight of the Rio de Condoroma, a tumultuous stream which bars the way, and must be crossed. Its surface, very quiet in the dry season, now presents a mad play of waves, foaming and dashing, and casting their spray high in air. To cross this torrent

at the spot where we are is impossible, and our only course is to follow it down till a ford is reached. This expedient leads us three miles out of our way, but proves at last successful.

About twelve miles of mountain paths, on the other side of the river, brings us to an outlet into the circular plain where lies the village of Cailloma, represented below, which the inhabitants call Cailloma la Rica, from the wealth of its silver mines. We cross the plain diagonally, and as we draw near Cailloma, the herdsmen's huts and cattle-parks seem to advance towards us. A few lights shine here and there in the town as we enter, and the muleteers guide the party to the *tampu*, or caravansary,



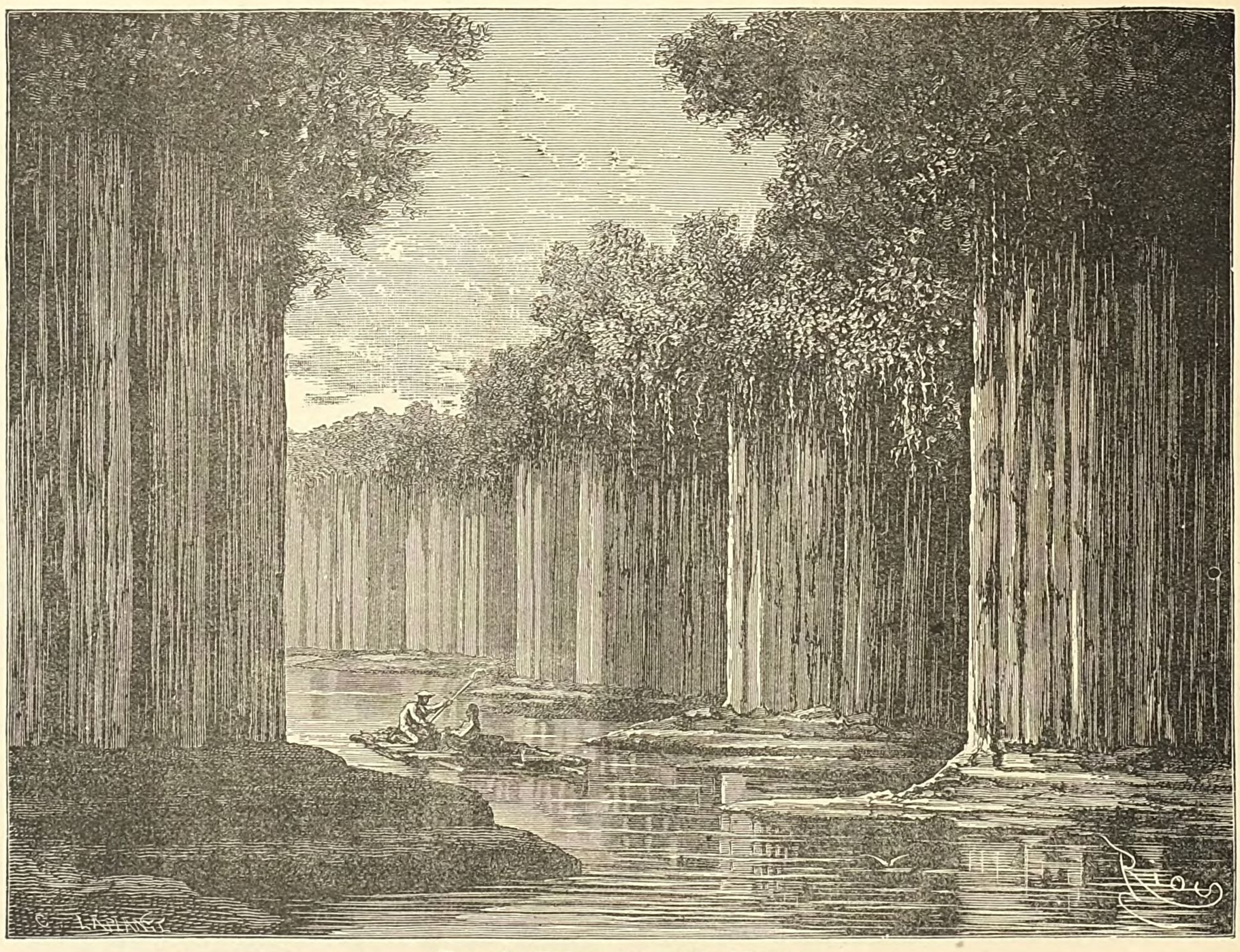
Cailloma la Rica.

where they are accustomed to lodge with their beasts. The *tampu* is a great enclosure like a farm-yard, open to the sky, and strewn with broken straw and provender. The lodgings for travellers are the little pens of rude masonry, receiving air and light only through the door, which line three sides of the enclosure.

An expedition through the town occupies an hour of leisure. There are five streets and sixty-three houses, besides the herdsmen's huts and parks of which we have before spoken. The church is a rectangular building, built of stone and earth, pierced with six windows, and surmounted by two square towers, each coiffed with something which may by courtesy be called a cupola. The high altar is flanked by

two chapels, one dedicated to Our Lady of Carmel, the other to St. Joseph, the patron saint of Peru. Both are ornamented with a profusion of votive offerings, reliquaries, and lamps of massive silver. A few worthless pictures complete the decoration of the holy place.

From Cailloma we proceed directly west for a few miles, following a road which is but a succession of steep declivities and precipices, as far as Lake Vilafro. From this lake, a placid blue sheet of water like a mirror of steel set in the ground, flows northward a little stream, at first called the Chita, which after a course of several leagues, and the reception of nine mountain torrents on the left, and eleven on the



Basalt Dikes on the Velille.

right, receives the name of the Apurimac, the *Master Brawler* of the Indians, and is presently lost in the mighty Amazon, at a point not more than five hundred miles distant from the Pacific coast.

In the infinite variety of the scenes traversed on our northward journey, the basalt dikes on the little river Velille, represented above, deserve especial mention. Emerging from a rude and dangerous gorge, where the road is a footpath along the edge of tremendous precipices, we are suddenly rewarded by this picture, of which nothing had given us the slightest preliminary hint. At the opening of the gorge the waters of the little stream spread out into a tranquil expanse sixty feet wide,

becoming as quiet as the stillest lake. The basaltic formations which determine this sudden change represent on the two sides of the river enormous piers, reflected in the water with their fluted shafts and architectural characteristics, and the vegetation growing luxuriantly upon their tops. Two Indians, kneeling on a raft of porous trunks which the weight of their bodies half submerged, gave life to the scene; and,

Rio Apurimac.

asking curiously what their occupation here might be, we learned that they were fishing for the celebrated *suchis*, the most delicious fish of the region of the Cordilleras.

The same basalt formations characterize much of the scenery in this part of the country. A few miles further the road leads within view of the Apurimac, rushing along between tall cliffs, like the leaves of a screen, or like the arrangement of side-

scenes in a theatre. Between them the yellow and foaming waters, making their way down an incline incumbered with rocks, dash and whirl along at a rapid pace.

Source of the Mesacancha.

From this point to the source of the Rio Mesacancha, the country is a succession of verdant plains and arid hill-slopes, of which nothing interrupts the monotony. Nowhere is seen the cultivated field or the thatched hut which betrays the presence of man. A little before we reach Chollacchaca, which is to furnish our night's lodging, between two wooded slopes of most picturesque outline, we come upon the cascade which is considered the source of the Mesacancha. It is scarcely possible to imagine a more exquisite scene, and one more in contrast with the wild grandeur which attends so many of the mountain torrents of Peru, especially the gorge of the Huarancalqui (see engraving on the opposite page), a few miles further on, and the northern limit of our expedition.

From the summit of a hill overgrown with those minute mushrooms called *cetas*, which the Indians bring to market in the cities, where gourmands devour them with great approbation, we look down into a gorge formed by the approach of the rocky barriers of the stream, to where, far below, a white torrent, all foam, rushes on its way. A narrow path leads down from the height on which we stand to the very edge of the stream. The guides say the descent is practicable, and we essay it (page 345). As we go down, daylight seems to withdraw. Soon the sky is but a narrow strip of blue far up between the rocks. When we reach the edge of this torrent, whose speed is incalculable, and its uproar deafening, a greenish half light which replaces the day of the upper world, wraps all things as in a fog, and gives to the scene a strange and supernatural character whose influence we feel but cannot explain.

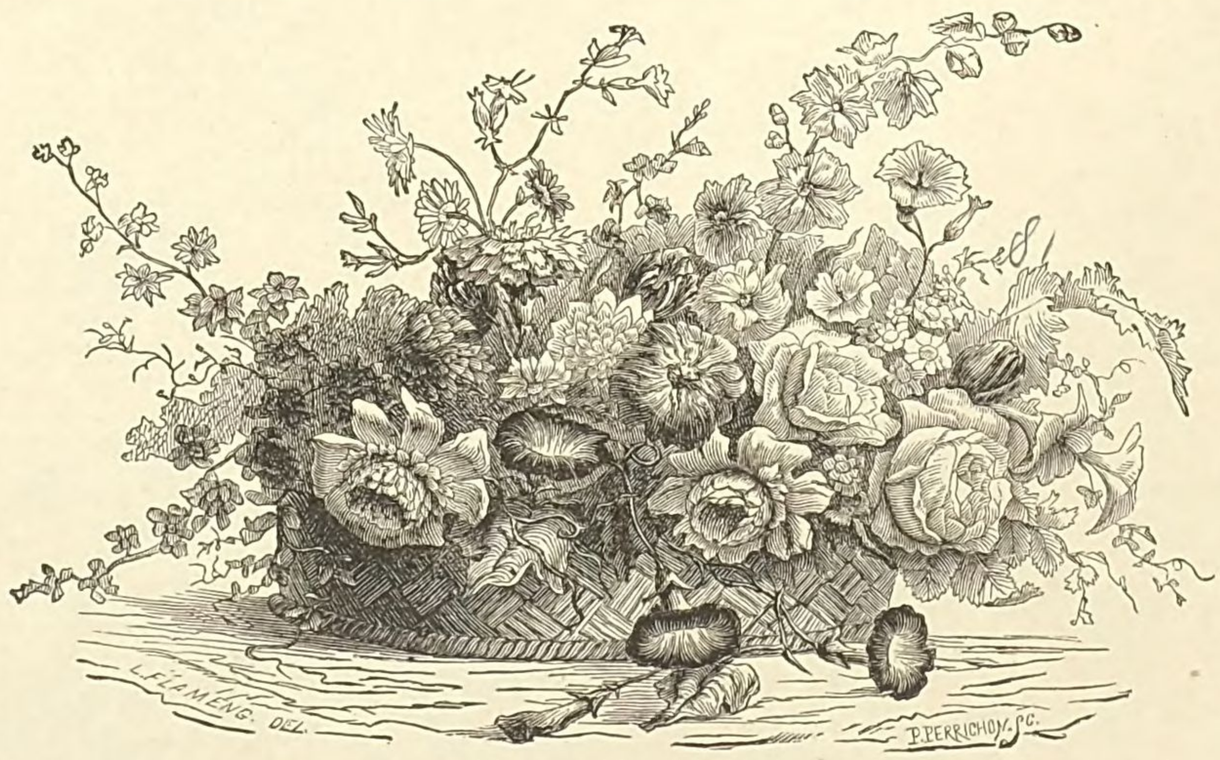
By aid of some beams placed across the torrent we pass from one bank to the other. We ascend a sort of natural staircase cut in the rock on the opposite side, and in an hour have left the scene behind us, and with the rapids of the Huarancalqui we bid adieu to the characteristic scenery of the Peruvian Cordillera. The region unfolding before us has no similarity to those we have seen among the Andes.

GORGE OF THE HUARANCALQUI.

The singular conical peaks, covered from base to summit with luxuriant vegetation, and furrowed vertically by mountain torrents, have disappeared. There are now only groups of low, rounded hills, either bare or clad with furze, out of which rise, here and there, clumps of low bushes. The atmosphere too has changed, and an extremely dry air takes the place of that warm dampness which rose out of the shady depths of the mountain valleys higher up.

Proceeding further into this region, which the early missionaries, and after them the geographers, have named the Pajonal, we discover that it is far from being so sterile as has been represented. Besides the great variety of cereals which grow here, and give it from a distance a denuded aspect, there are many useful plants and shrubs, and after a time we come to dense forests, differing, however, in character from those on the Andean slopes.

All the country is full of rivers, embroidering with threads of silver the broad expanse of these great plains, and falling one after another into the Apurimac. At the point of meeting of the Huarancalqui and the Apurimac, the latter is about four hundred feet broad. Most of these streams are navigable, and the traveller, who explores them now in his canoe, and with his Indian guides, cannot but picture to himself, as he takes a last look at them, that the day must come when civilization will furrow their quiet waters with her swift keels, and lay across these solitary plains the network of her iron tracks.



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